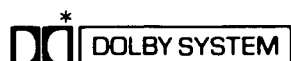


Service Manual

Dolby NR-Equipped
Stereo Double Cassette Deck

Cassette Deck
RS-X102



Color

(K)... Black Type

Area

Country Code	Area	Color
(E)	Continental Europe.	(K)
(EB)	Great Britain.	
(EG)	F.R. Germany and Italy.	
(GC)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	



MECHANISM SERIES (AR300)

SPECIFICATIONS

■ CASSETTE DECK SECTION

Deck system	Stereo cassette deck
Track system	4-track, 2-channel
Heads	
(tape deck 2) rec/play	Permalloy head
erasing	Double-gap ferrite head
(tape deck 1) play	Permalloy head
Motors	
(tape deck 2) Capstan/reel table drive	DC servo motor
(tape deck 1) Capstan/reel table drive	DC servo motor
Recording system	AC bias
Bias frequency	80 kHz
Erasing system	AC erase
Tape speeds	4.8 cm/sec. (1-7/8 ips)
Frequency response (w/o Dolby NR)	
NORMAL	30 Hz~16 kHz
	40 Hz~15 kHz (DIN)
CrO₂	30 Hz~16 kHz
	40 Hz~15 kHz (DIN)
METAL	30 Hz~18 kHz
	40 Hz~17 kHz (DIN)
S/N (signal level = max recording level, CrO ₂ type tape)	
Dolby B NR ON	66 dB (CCIR)
Dolby NR OFF	56 dB (A weighted)

Wow and flutter 0.1 % (WRMS)

Fast forward and rewind times

Approx. 110 seconds with C-60 cassette tape

Input sensitivity and impedance

LINE 60 mV/47 kΩ

Output voltage and impedance

LINE 400 mV/800 Ω

■ GENERAL

Power consumption 15 W

Dimensions (W × H × D)

360 × 129 × 285 mm
(14-3/16" × 5-3/32" × 11-7/32")

Weight

3.7 kg (8.1 lb.)

Note:

Specifications are subject to change without notice.
Weight and dimensions are approximate.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trade marks of Dolby Laboratories Licensing Corporation.

Technics

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ACCESSORIES



3-core flat cable
(REX0346) 1 pc.

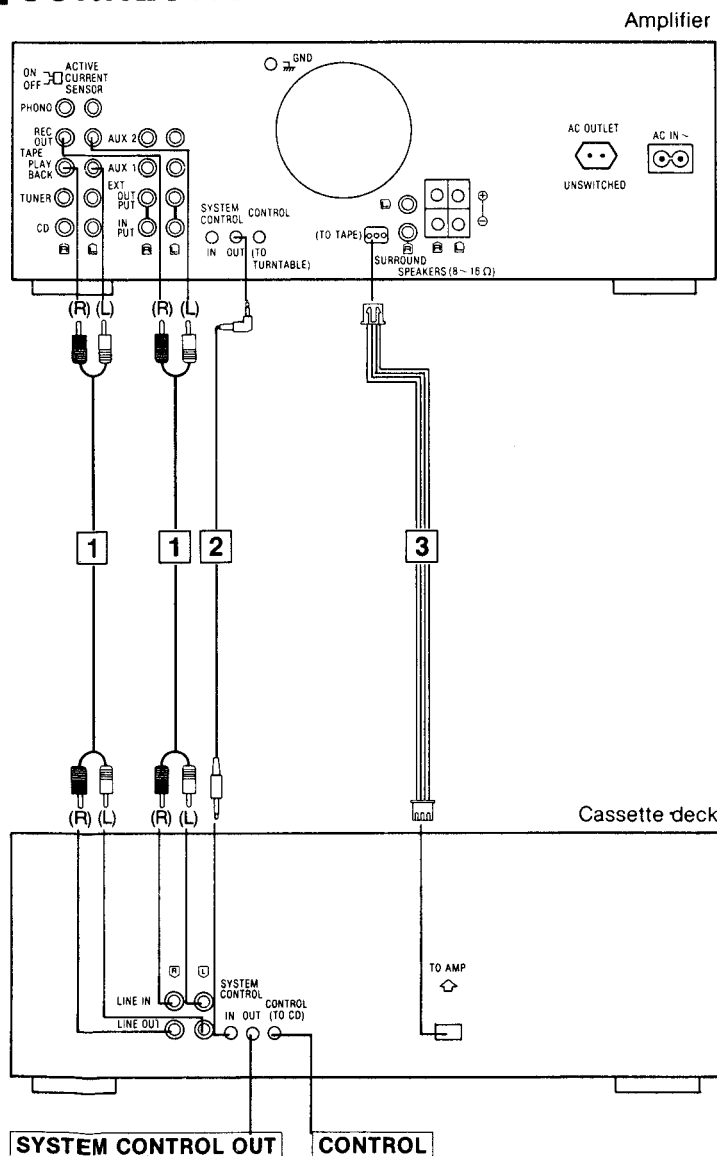


L-type cable
(SJP2257T) 1 pc.



Stereo connection cables
(SJP2249-3) 2 pcs.

CONNECTIONS



Make connections in the numbered sequence by using the included cables.

Stereo connection cable

White (L) ————
Red (R) ————

1 Connect the stereo connection cables.

2 Connect the L-type cable.

3 Connect the flat cable.

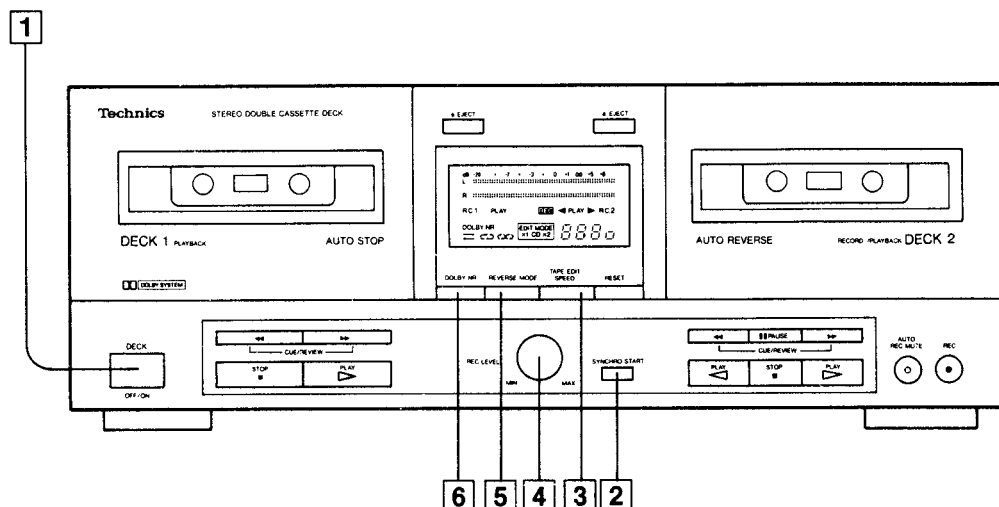
SYSTEM CONTROL OUT

This terminal is used to connect a Technics compact disc player or a Technics stereo graphic equalizer with the "SYSTEM CONTROL IN" terminal.

CONTROL

This terminal is used to connect a Technics multi compact disc player with the "CONTROL" terminal.

LOCATION OF CONTROLS



Controls common to both tape decks

1 DECK ON/OFF switch (DECK)

2 Synchro-start button (SYNCHRO START)

This button can be used to start a tape-to-tape recording, simultaneously starting tape deck 1 (the playback deck) and tape deck 2 (the recording deck).

3 Tape-to-tape recording tape-speed selector (TAPE EDIT SPEED)

This selector can be used to select the recording speed when a tape-to-tape recording is made.

4 Recording-level control (REC LEVEL)

This control can be used to regulate the recording level of tape deck 2.

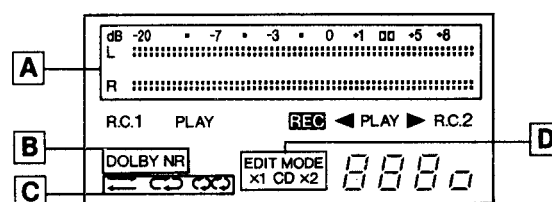
5 Reverse-mode selector (REVERSE MODE)

This selector can be used for selection of the reverse mode (for either playback or recording).

6 Dolby noise-reduction button (DOLBY NR)

This button is used to reduce the "hissing" noise heard from the tape.

Indicators common to both tape decks



A Input level meter

During playback, this meter indicates the level of the recorded sound source.

During recording, it indicates the level being recorded, adjusted by the recording-level control.

B Dolby noise-reduction indicator (DOLBY NR)

This indicator illuminates when the Dolby noise-reduction button is pressed.

C Reverse-mode indicators (= , ⏮ , ⏭)

One of these indicators illuminates to show which of the reverse modes was selected by the reverse-mode selector.

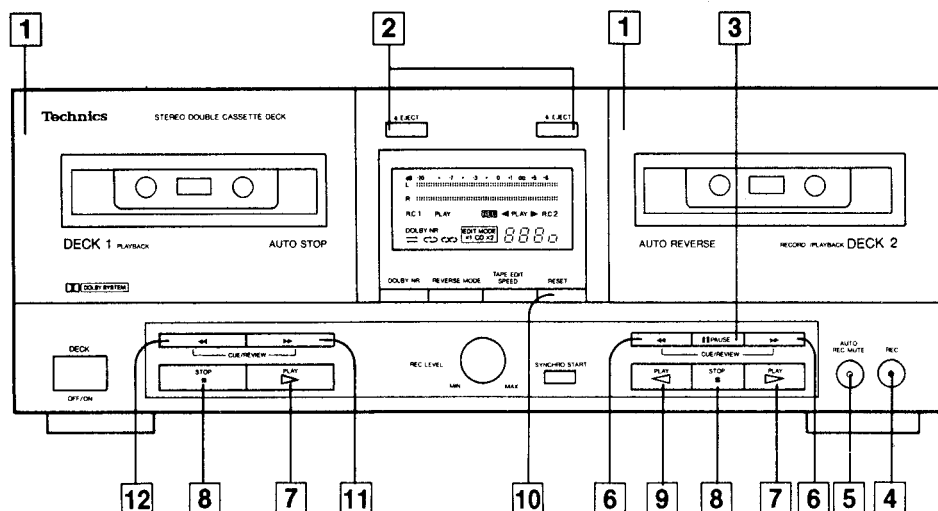
D Edit-recording indicators (EDIT MODE, CD, ×1, ×2)

The words "EDIT MODE" and "×1 (or "×2")" indicator will illuminate when a tape-to-tape recording is made.

The words "EDIT MODE" and "CD" indicator will illuminate when a CD edit-recording is made.

Tape deck 1

Tape deck 2



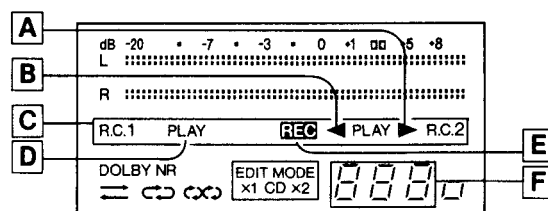
Controls applicable to tape deck 1 and/or 2

- 1 Cassette holder**
- 2 Eject button (▲ EJECT)**
This button can be used to open the cassette holder.
- 3 Pause button (⏸ PAUSE)**
This button can be used to temporarily stop the tape playback or recording, on tape deck 2 only.
- 4 Record button (REC)**
This button can be used to change tape deck 2 to the recording stand-by mode.
- 5 Automatic-record-muting button (AUTO REC MUTE)**
This button can be used to make a silent interval on the tape during recording, on tape deck 2 only.
- 6 Fast-forward/cue, rewind/review buttons (⏮, ⏭)**
These buttons are used to advance or rewind the tape. During playback, these buttons are used to cue or review while listening to the contents at high speed.
- 7 Forward-side playback button (▶ PLAY)**
This button can be used to start the playback or recording of side "A" of the cassette in tape deck 2 only.
(The tape will then begin moving in the left-to-right direction.)
- 8 Stop button (■ STOP)**
This button can be used to stop tape movement.
- 9 Reverse-side playback button (◀ PLAY)**
This button can be used to start the playback or recording of side "B" of the cassette in tape deck 2 only.
(The tape will then begin moving in the right-to-left direction.)
- 10 Tape counter reset button (RESET)**
This button can be used to reset the tape counter indication (for tape deck 2 only) to "000".
- 11 Fast-forward/cue button (▶▶)**
This button is used to advance the tape. During playback this button is used to cue the contents at high speed.

12 Rewind/review button (◀◀)

This button is used to rewind the tape. During playback this button is used to review the contents at high speed.

Indicators applicable only to deck 1 or 2

**A Forward-side indicator (▶)**

This indicator illuminates during playback or recording on tape deck 2 to indicate that side "A" of the tape is being used.

B Reverse-side indicator (◀)

This indicator illuminates during playback or recording on tape deck 2 to indicate that side "B" of the tape is being used.

C Remote-control indicator (R.C.1/R.C.2)

This indicator illuminates to indicate that this tape deck can now be controlled by the remote-control transmitter (included with tuner).

D Playback indicator (PLAY)

When this indicator illuminates steadily, it indicates that this tape deck is in the playback mode or the recording mode (for tape deck 2 only).

When it flashes continually, this is an indication that tape deck 2 is in the pause mode or the recording stand-by mode.

E Recording indicator (REC)

This indicator illuminates to indicate that tape deck 2 is in the recording stand-by mode or is recording.

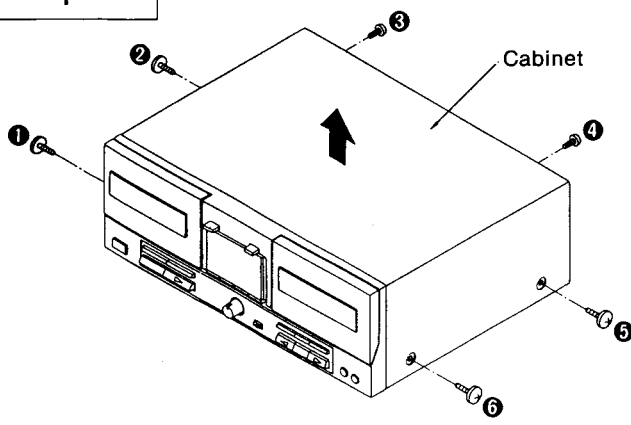
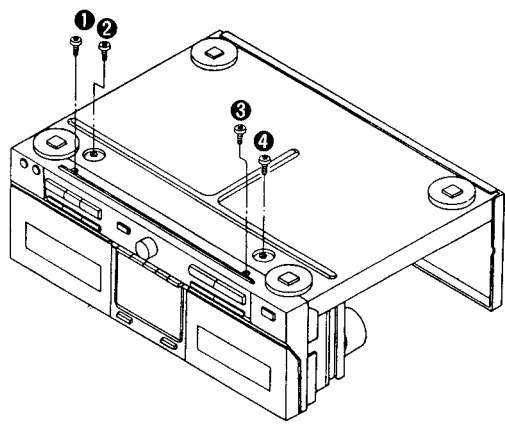
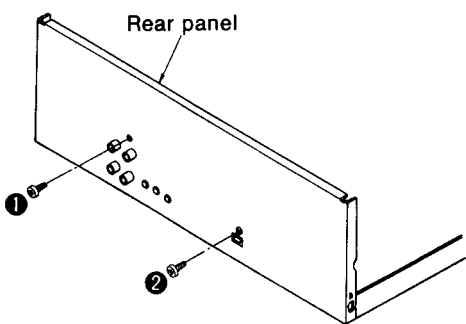
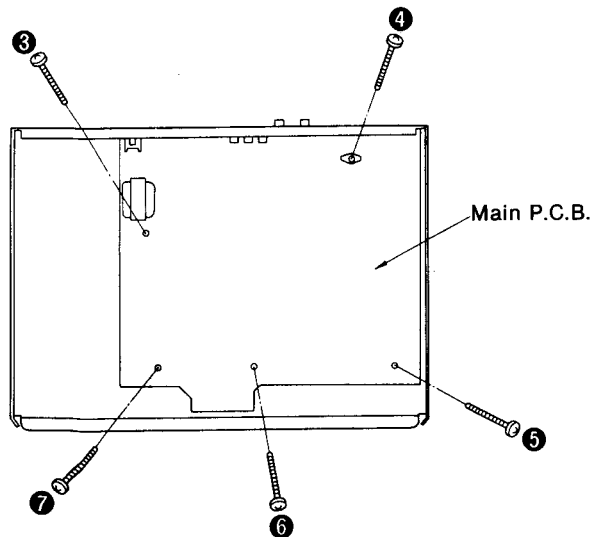
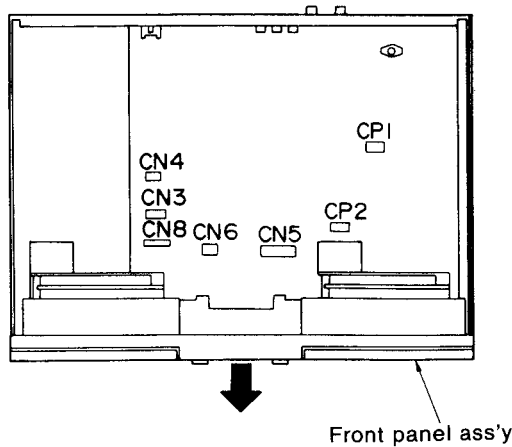
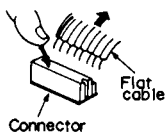
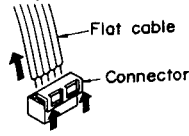
F Tape deck 2 counter

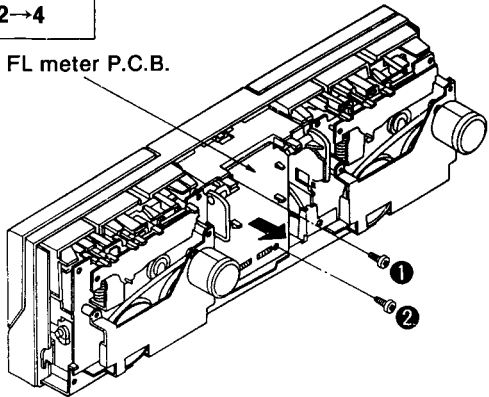
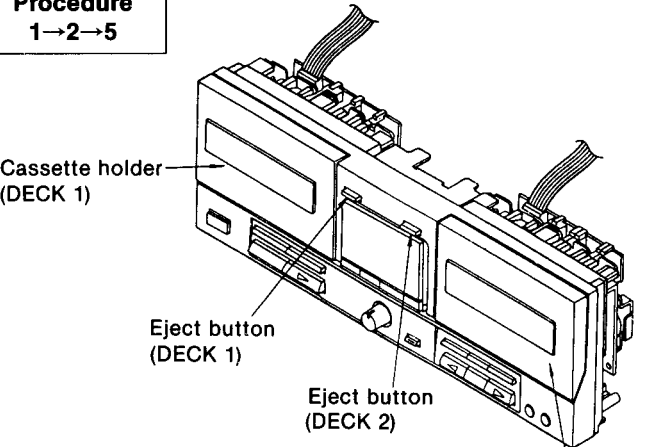
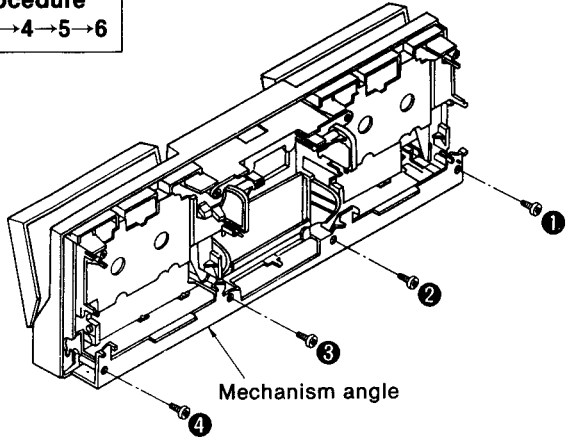
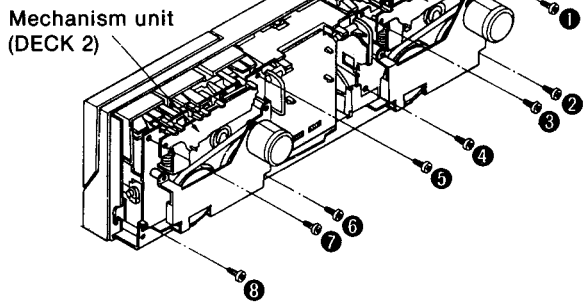
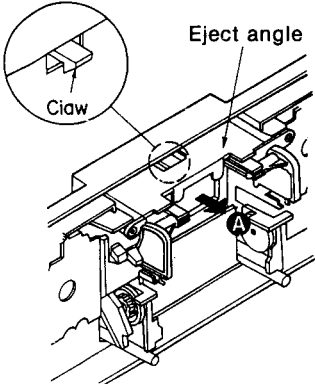
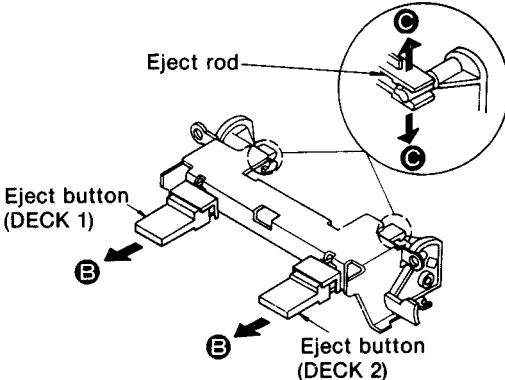
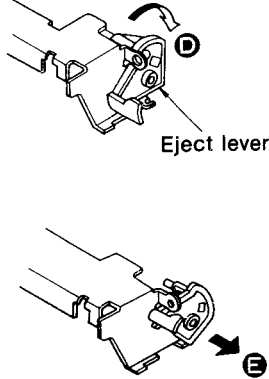
Indicates the amount of tape movement.

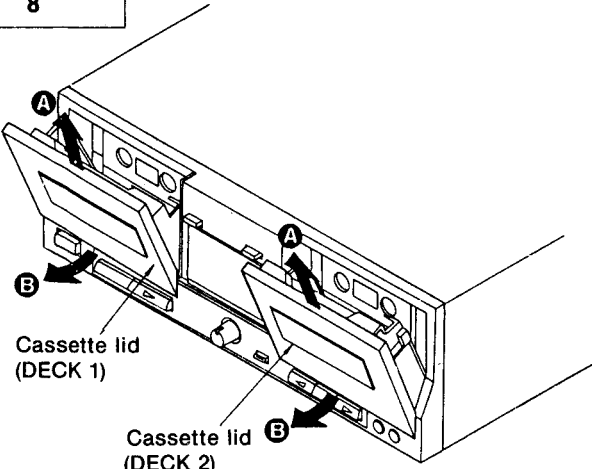
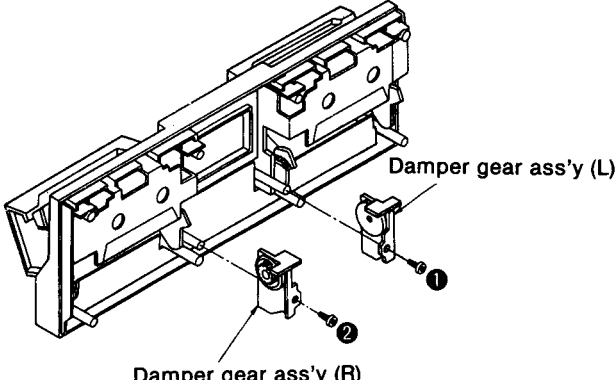
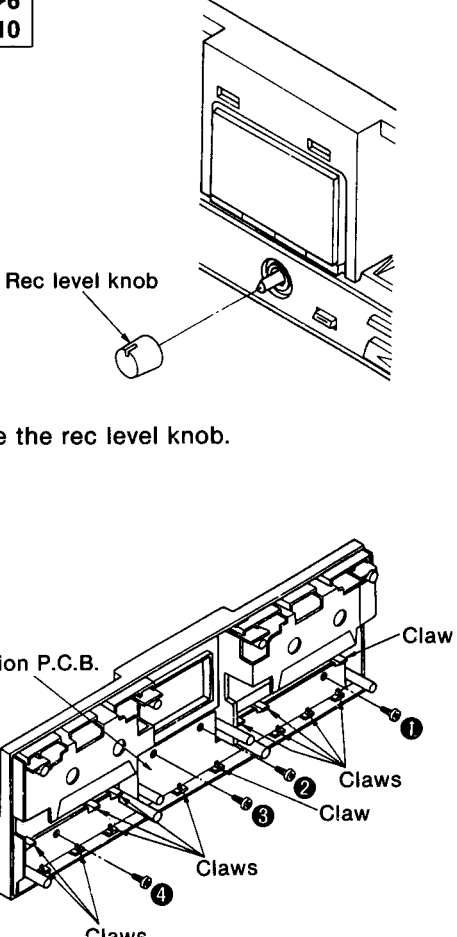
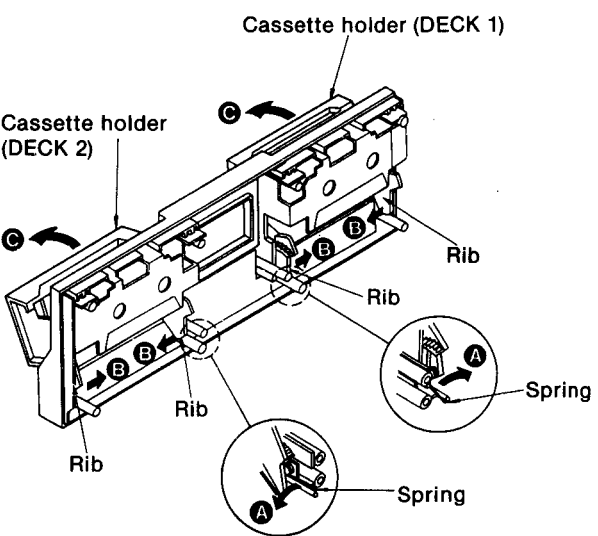
DISASSEMBLY INSTRUCTIONS

“ATTENTION SERVICER”

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

Ref. No. 1	Removal of the cabinet	Ref. No. 2	Removal of the front panel ass'y
Procedure 1		Procedure 1→2	
	 <p>• Remove the 6 screws (①~⑥).</p>		 <p>1. Remove the 4 screws (①~④).</p>
Ref. No. 3	Removal of the main P.C.B.		
Procedure 1→2→3			
	 <p>1. Remove the 2 screws (①, ②).</p>  <p>2. Remove the 5 screws (③~⑦).</p>		 <p>2. Remove the 2 connectors (CP1, CP2). 3. Remove the 5 flat cables (CN3, CN4, CN5, CN6, CN8). 4. Remove the front panel ass'y in the direction of arrow.</p> <p>How to remove the flat cable</p> <p>• Pull out the flat cable while pressing the connector. (CN3, CN5, CN8)</p> <p>1. Lift the connector. 2. Pull out the flat cable. (CN4, CN6)</p>  

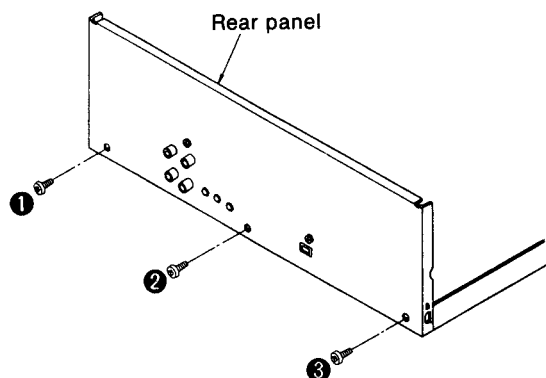
Ref. No. 4	Removal of the FL meter P.C.B.	Ref. No. 5	Removal of the mechanism units (DECK 1, DECK 2)
Procedure 1→2→4	Procedure 1→2→4	Procedure 1→2→5	Procedure 1→2→5
	 <p>FL meter P.C.B.</p> <ol style="list-style-type: none"> 1. Remove the 2 screws (①, ②). 2. Remove the FL meter P.C.B. in the direction of arrow. 		 <p>Cassette holder (DECK 1)</p> <p>Eject button (DECK 1)</p> <p>Eject button (DECK 2)</p> <p>Cassette holder (DECK 2)</p>
Ref. No. 6	Removal of the mechanism angle		
Procedure 1→2→4→5→6	Procedure 1→2→4→5→6		
	 <p>Mechanism angle</p> <p>• Remove the 4 screws (①~④).</p>		 <p>Mechanism unit (DECK 1)</p> <p>Mechanism unit (DECK 2)</p> <p>■ Removal of the mechanism unit (DECK 1)</p> <ol style="list-style-type: none"> 1. Press the eject button and open the cassette holder. 2. Remove the 4 screws (①~④). <p>■ Removal of the mechanism unit (DECK 2)</p> <ol style="list-style-type: none"> 1. Press the eject button and open the cassette holder. 2. Remove the 4 screws (⑤~⑧).
Ref. No. 7	Removal of the eject angle, eject buttons, and eject lever		
Procedure 1→2→4→5→7	Procedure 1→2→4→5→7		
 <p>Eject angle</p> <p>Claw</p> <ol style="list-style-type: none"> 1. Release the 1 claw. 2. Pull out the eject angle in the direction of arrow A. 	 <p>Eject rod</p> <p>Eject button (DECK 1)</p> <p>Eject button (DECK 2)</p> <ol style="list-style-type: none"> 3. Pull out the claw of the eject rod in the direction of arrow B, remove the eject buttons and the eject rod in the direction of arrow C. 		 <p>Eject lever</p> <ol style="list-style-type: none"> 4. Turn the eject lever in the direction of arrow D, and remove the eject lever in the direction of arrow E.

Ref. No. 8	Removal of the cassette lid (DECK 1, DECK 2)	Ref. No. 9	Removal of the cassette holder (DECK 1, DECK 2)
Procedure 8	 <p>Cassette lid (DECK 1)</p> <p>Cassette lid (DECK 2)</p> <ul style="list-style-type: none"> Lift the cassette lid in the direction of arrow A and remove it in the direction of arrow B. 	Procedure 1→2→4→5 →6→7→8→9	 <p>Damper gear ass'y (L)</p> <p>Damper gear ass'y (R)</p> <ol style="list-style-type: none"> Remove the 2 screws (1, 2). Remove the damper gear ass'y (L) and damper gear ass'y (R).
Ref. No. 10	Removal of the operation P.C.B.		
Procedure 1→2→4→5→6 →7→8→9→10	 <p>Rec level knob</p> <p>Operation P.C.B.</p> <p>Claw</p> <p>Claws</p> <p>Claw</p> <p>Claws</p> <p>Claws</p> <ol style="list-style-type: none"> Remove the rec level knob. Remove the 4 screws (1~4). Release the 14 claws. 		 <p>Cassette holder (DECK 1)</p> <p>Cassette holder (DECK 2)</p> <p>Rib</p> <p>Rib</p> <p>Rib</p> <p>Rib</p> <p>Spring</p> <p>Spring</p> <ol style="list-style-type: none"> Remove the springs in the direction of arrow A. Remove the ribs in the direction of arrow B. Remove the cassette holder in the direction of arrow C.

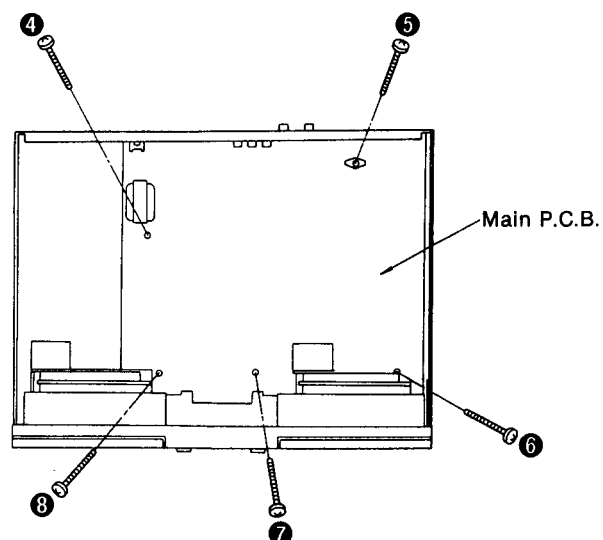
Ref. No.
11

How to check the main P.C.B.

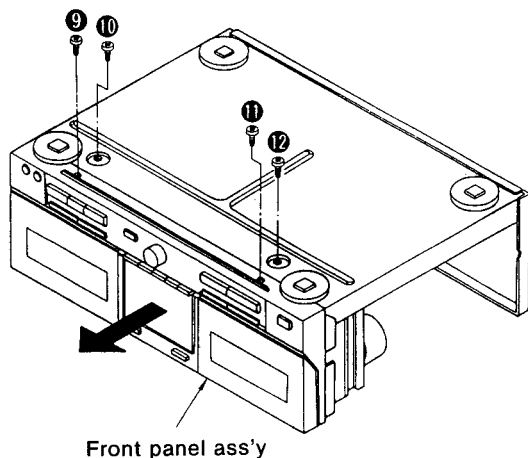
Procedure
1→11



1. Remove the 3 screws (①~③).

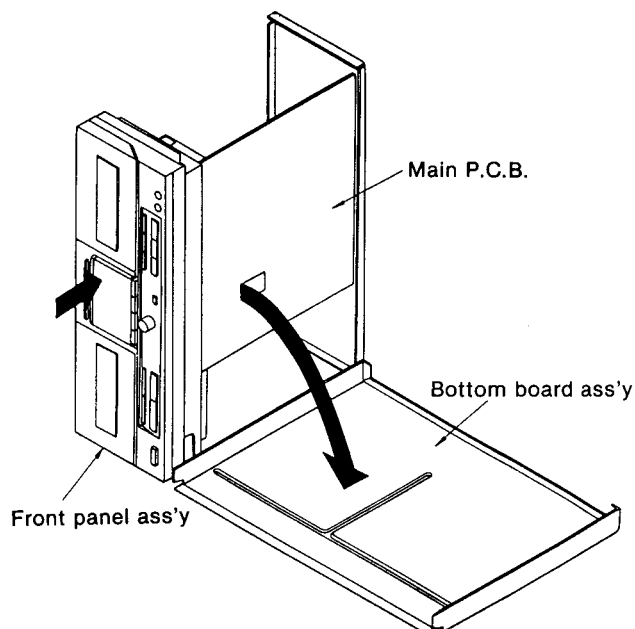


2. Remove the 5 screws (④~⑧).



3. Remove the 4 screws (⑨~⑫).

4. Remove the front panel ass'y in the direction of arrow.

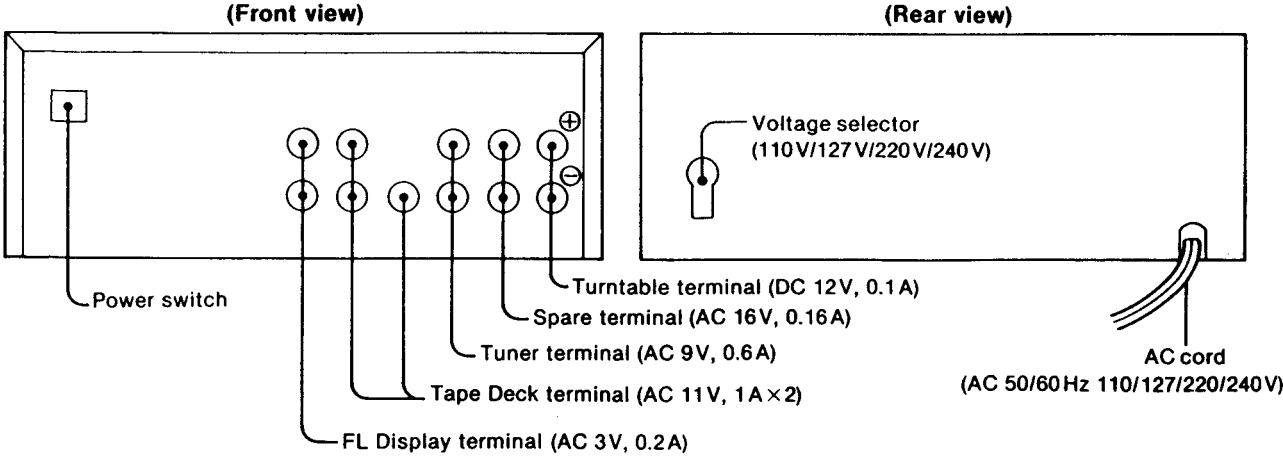


5. Remove the bottom board ass'y.

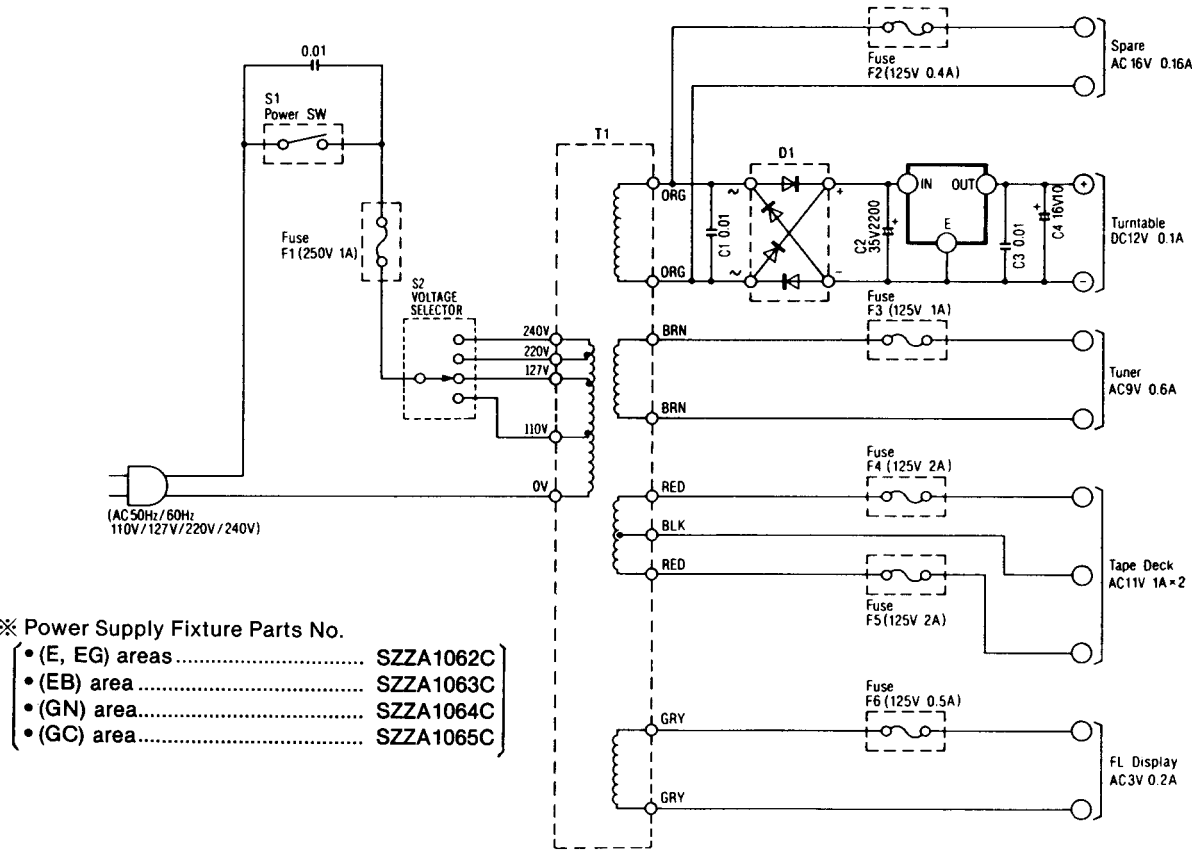
6. Reinstall the front panel ass'y to the main P.C.B.

■ INFORMATION ON POWER SUPPLY FIXTURE

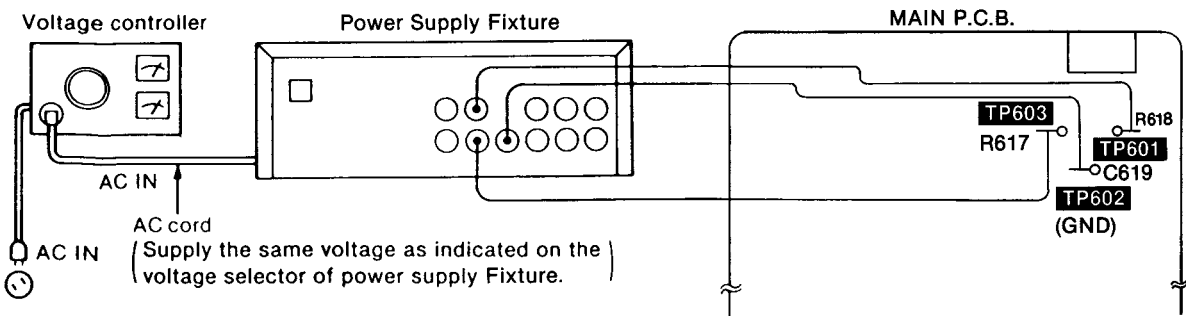
• LOCATION



• SCHEMATIC DIAGRAM (Reference)



• HOW TO CONNECT



MEASUREMENTS AND ADJUSTMENTS

Measurement Condition

- Rec. level control; Maximum
- Reverse-mode selector switch; \rightleftarrows
- Tape-to-tape-recording tape-speed selector; X1

- Dolby NR selector switch; Off
- Make sure heads are clean
- Make sure capstan and pressure roller are clean
- Judgeable room temperature $20 \pm 5^{\circ}\text{C}$ ($68 \pm 9^{\circ}\text{F}$)

Measuring instrument

- EVM (Electronic Voltmeter)
- Oscilloscope
- Digital frequency counter
- AF oscillator

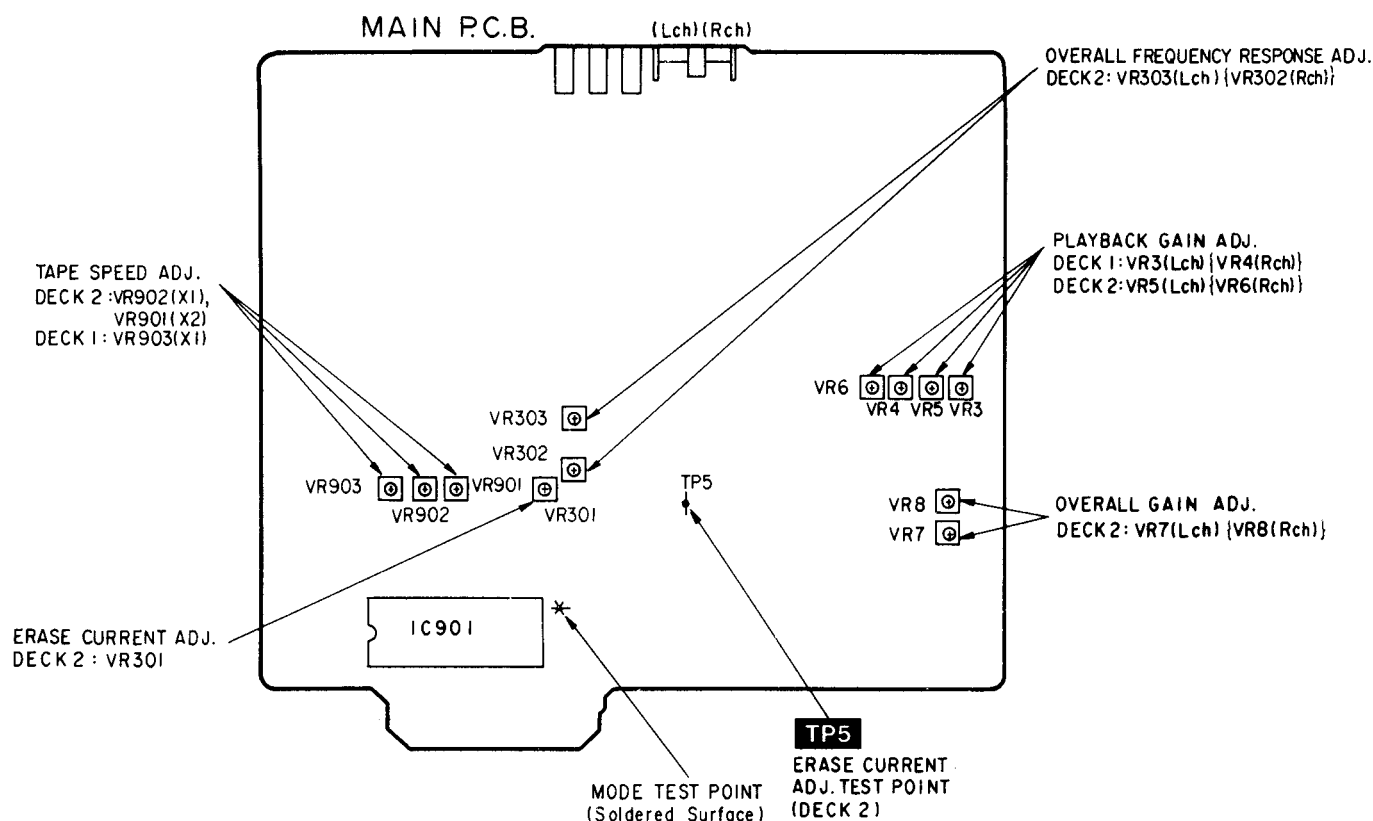
- ATT (Attenuator)
- DC voltmeter
- Resistor (600Ω)

Test tape

- Head azimuth adjustment (8 kHz, -20dB); QZZCFM
- Tape speed adjustment (3 kHz, -10dB); QZZCWAT
- Playback frequency response (315 Hz, 12.5 kHz, 10 kHz, 8 kHz, 4 kHz, 1 kHz, 250 Hz, 125 Hz, 63 Hz, -20dB); QZZCFM

- Playback gain adjustment (315 Hz, 0 dB); QZZCFM
- Overall frequency response, Overall gain adjustment
Normal reference blank tape; QZZCRA
CrO₂ reference blank tape; QZZCRX
Metal reference blank tape; QZZCRZ

Adjustment Points



HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Playback the azimuth adjustment portion (8kHz, -20dB) of the test tape (QZZCFM). Vary the azimuth adjusting screw until the outputs of the L-CH and R-CH are maximized and the lissajous waveform, as illustrated, approaches 0 degrees.

Note: If L-CH and R-CH are not maximized at the same point, adjust to the point where the levels of each channel are maximized and equal.

2. Perform the same adjustment in the play mode.
3. After the adjustment, apply screwlock to the azimuth adjusting screw.

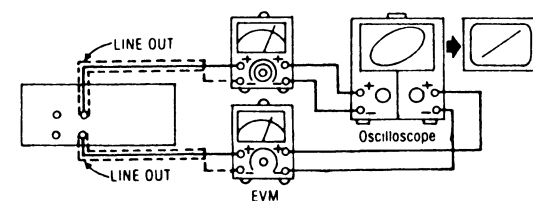


Fig. 1

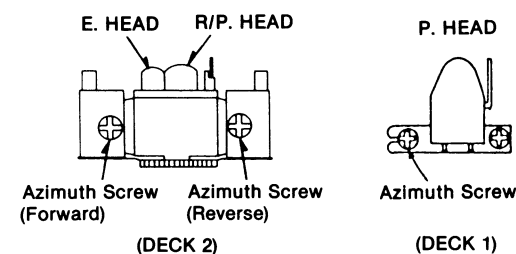


Fig. 2

TAPE SPEED ADJUSTMENT (DECK 1/2)**Normal speed**

1. Shift the Tape-to-tape recording tape-speed selector to "X1" and press the synchro-start button.
2. Playback the middle portion of the test tape (QZZCWAT).
3. Adjust Deck 1 = VR903 and Deck 2 = VR902 so that the output is within the standard value.

High speed

4. Shift the Tape-to-tape recording tape speed switch to "X2" and press the synchro-start button.
5. Playback the middle portion of the test tape (QZZCWAT).
6. Adjust Deck 2 = VR901 so that the output is within the standard value.

Note: The Normal speed adjustment must be done before the High speed adjustment.

(DECK 1) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 600 Hz [High (X2), only confirmation]
(DECK 2) Standard value: 3000 ± 15 Hz [Normal (X1)], 6000 ± 30 Hz [High (X2)]

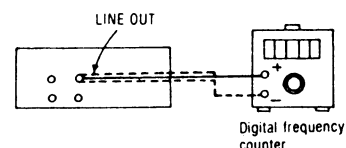


Fig. 3

PLAYBACK GAIN ADJUSTMENT (DECK 1/2)

1. Playback the gain adjusted portion (315Hz, 0dB) of the test tape (QZZCFM).
2. Adjust Deck 1 = VR3 (L-CH) [[VR4 (R-CH)]] and Deck 2 = VR5 (L-CH) [[VR6 (R-CH)]] so that the output is within the standard value.

Standard value: $0.4V \pm 0.5dB$

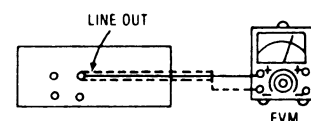


Fig. 4

PLAYBACK FREQUENCY RESPONSE (DECK 1/2)

1. Playback the frequency response portion (315Hz, 12.5kHz~63Hz, -20dB) of the test tape (QZZCFM).
2. Assume that the frequency response is within the range shown in Fig. 6 for both L-CH and R-CH.

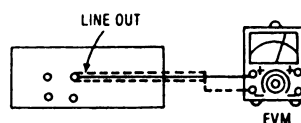


Fig. 5

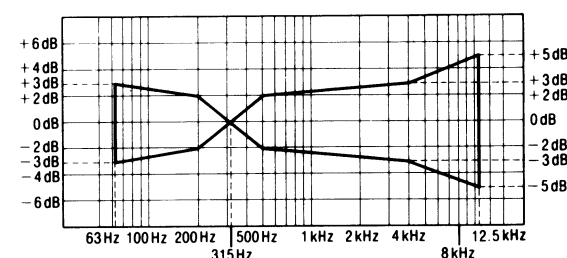


Fig. 6

ERASE CURRENT ADJUSTMENT (DECK 2)

1. Insert the Metal blank test tape (QZZCRZ) and set the unit to the Record Pause mode.
2. Adjust VR301 so that the output between TP5 and GND is within the standard value.

Standard value: 190 ± 5 mA (Metal)...EVM Reading: 190 ± 5 mV

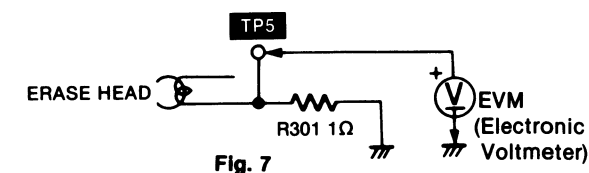


Fig. 7

OVERALL FREQUENCY RESPONSE (DECK 2)

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record Pause mode.
2. Apply a reference input signal (1kHz, -24dB) through an attenuator.
3. Attenuate the signal by 20dB and adjust the frequency from 50Hz~10kHz.
4. Record the frequency sweep.
5. Playback the recorded signal and assure that it is within the range shown in Fig. 8 in comparison to the reference frequency (1kHz).
6. If it is not within the standard range, adjust VR303 (L-CH) and VR302 (R-CH) so that the frequency level is within the standard range.

- Level up in high frequency rangeIncrease the bias current.
- Level down in high frequency range ...Decrease the bias current.

7. Repeat steps 2~6 above using the CrO₂ tape (QZZCRX) and the Metal tape (QZZCRZ) increasing the frequency range to 12.5kHz (50Hz~12.5kHz).
8. Assure that the level is within the range shown in Fig. 9.

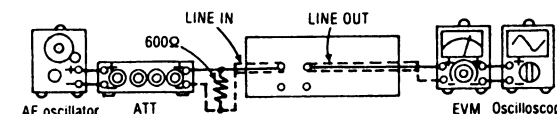


Fig. 10

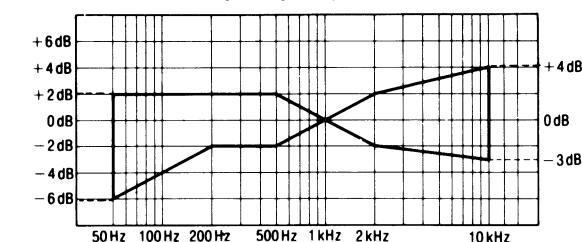
Normal Overall frequency response chart (NR OUT)

Fig. 8

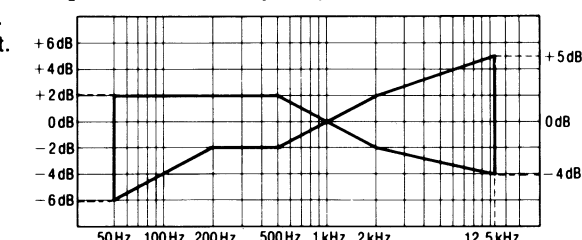
CrO₂ Metal Overall frequency response chart (NR OUT)

Fig. 9

OVERALL GAIN ADJUSTMENT (DECK 2)

1. Insert the Normal blank test tape (QZZCRA) and set the unit to the Record pause mode.
2. Apply a reference input signal (1kHz, -24dB). Attenuate the output so that its level becomes 0.4V.
3. Record this input signal.
4. Playback the signal recorded in step 3 above, and assure that the output is within the standard value.
5. If it is not within the standard value, adjust VR7 (L-CH) and VR8 (R-CH).
6. Repeat the step 2~5 above until the output is within the standard value.

Standard value: $0.4V \pm 0.5dB$

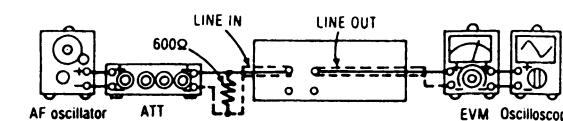
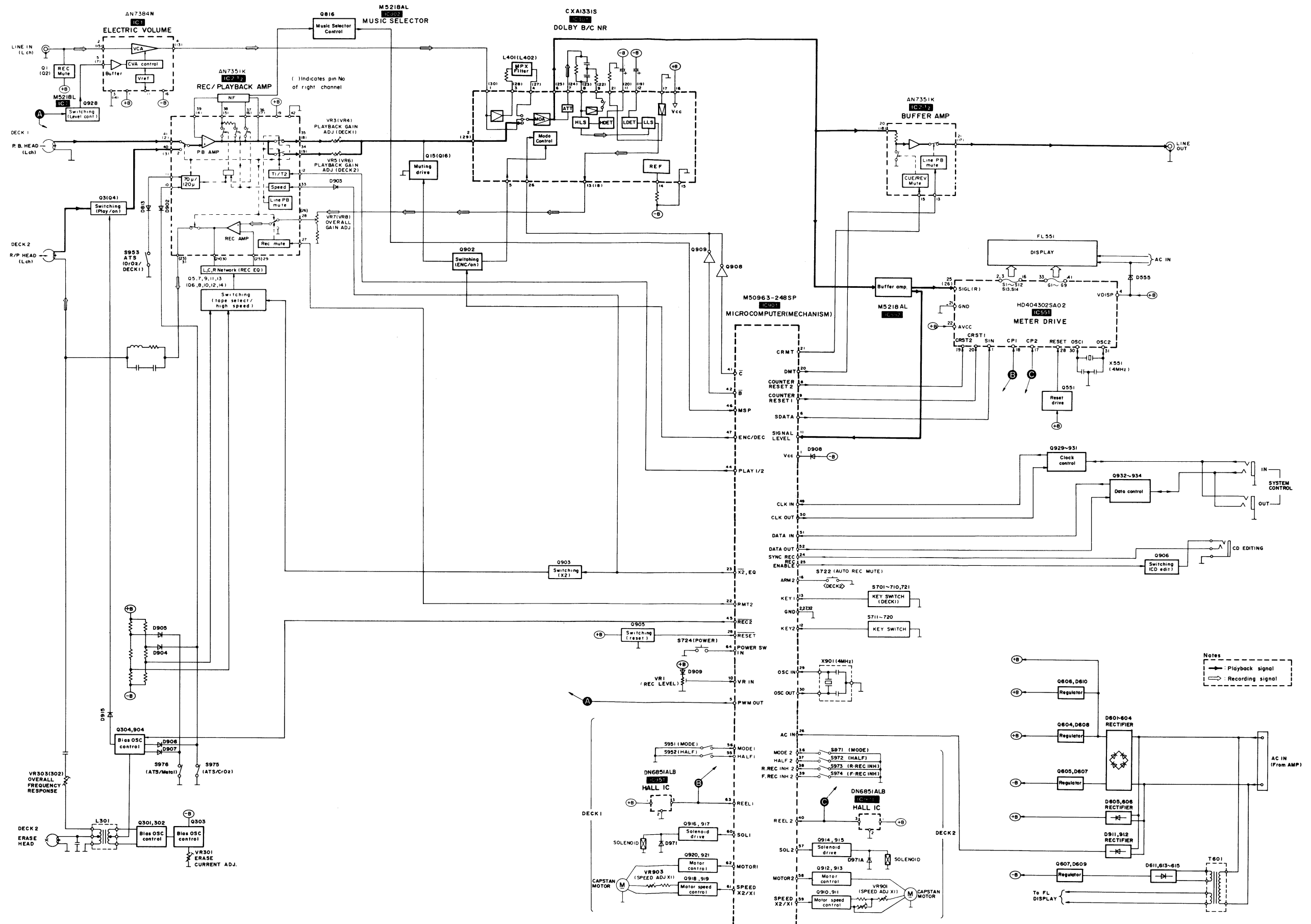


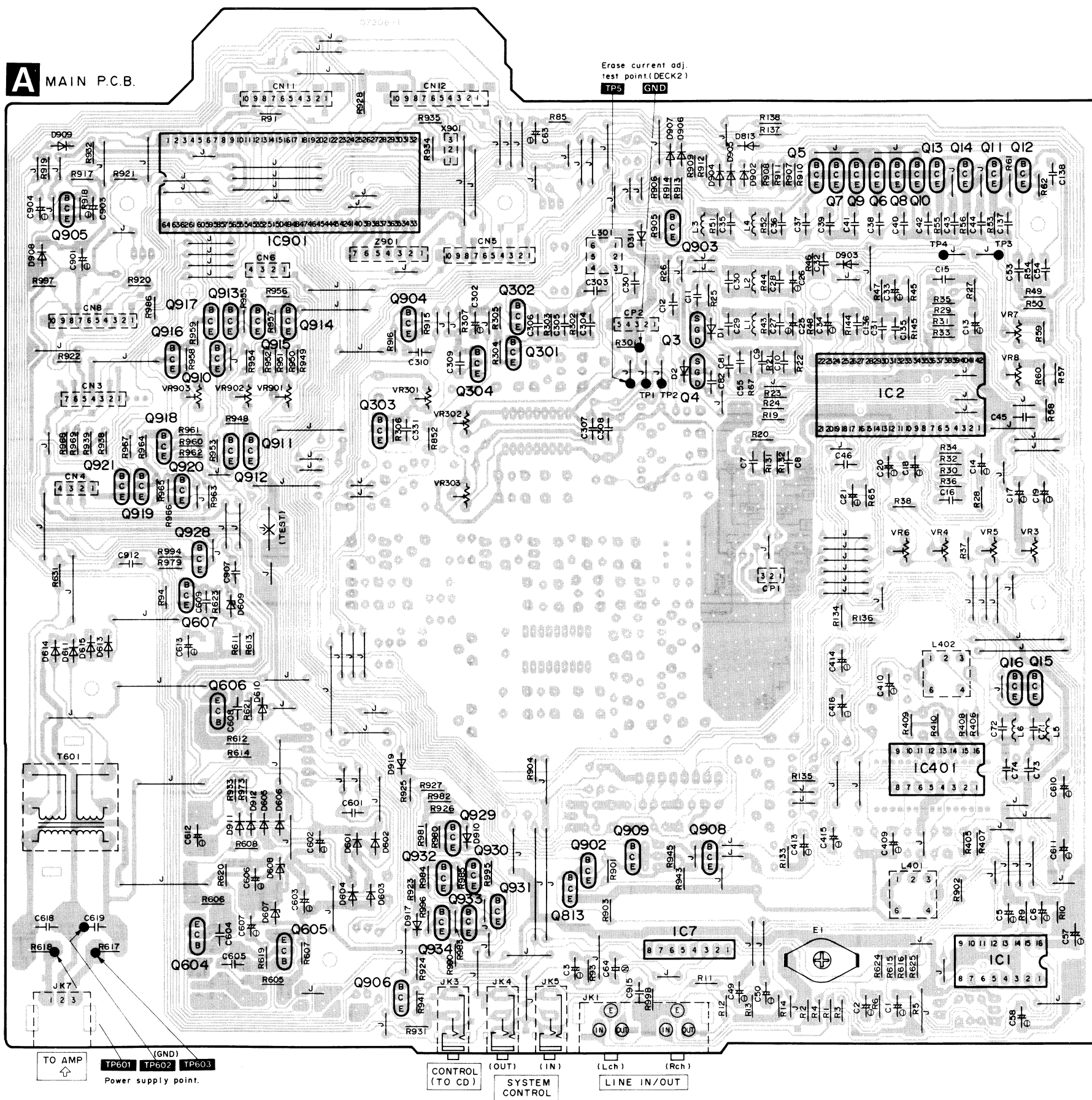
Fig. 11

BLOCK DIAGRAM

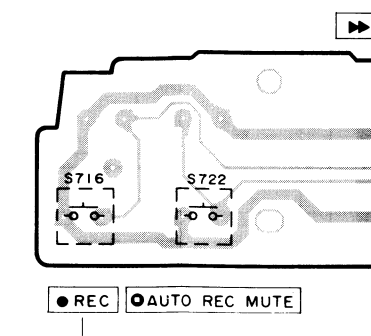
RS-X102 RS-X102



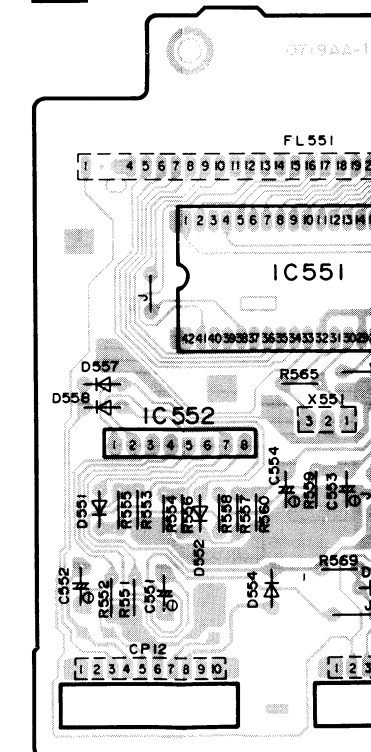
PRINTED CIRCUIT BOARDS



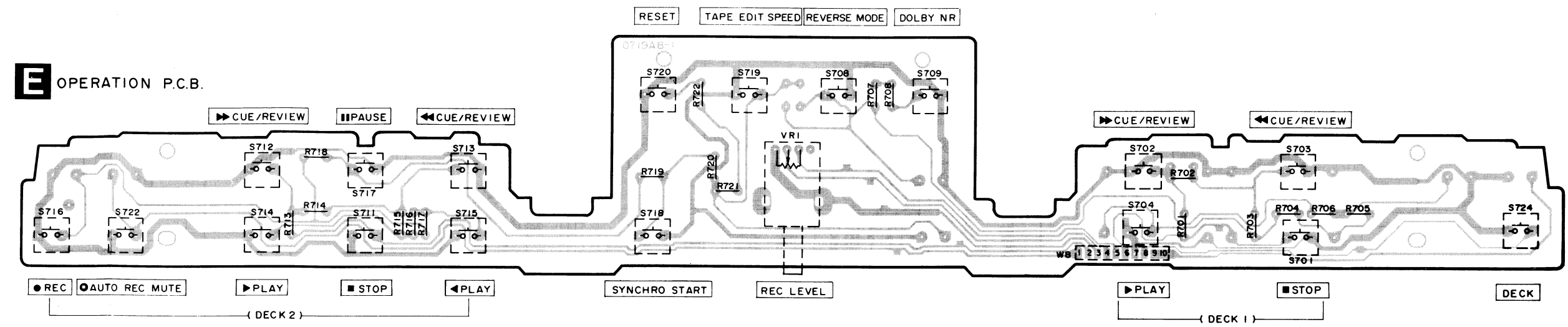
E OPERATION P.C.B.



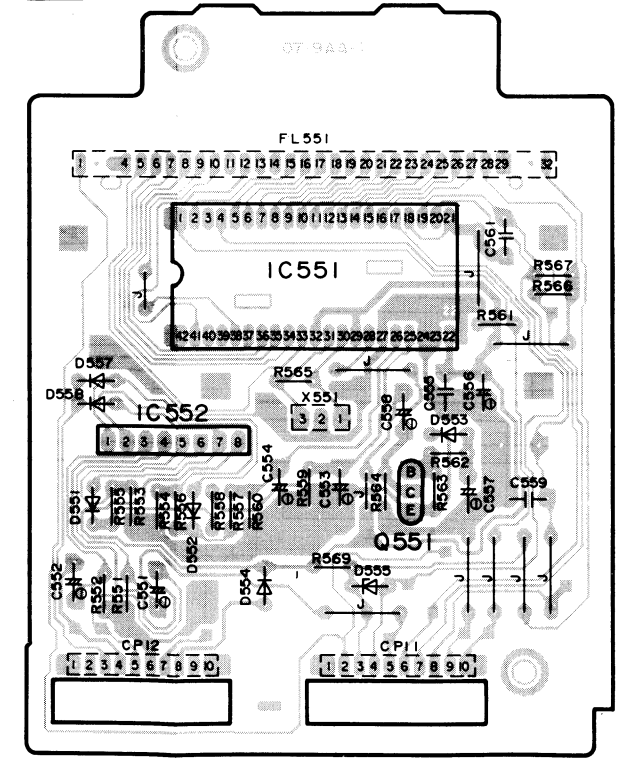
D FL METER P.C.B.



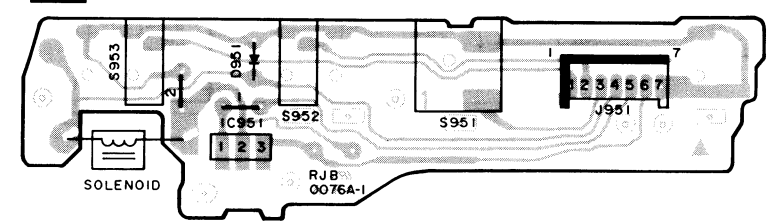
E OPERATION P.C.B.



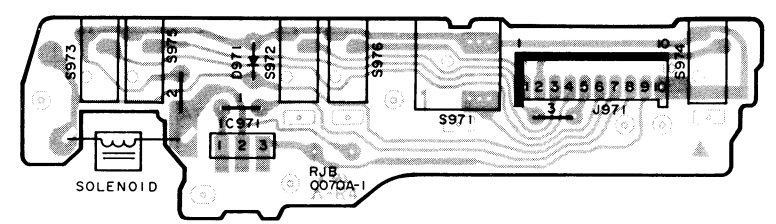
D FL METER P.C.B.



B MECHANISM (DECK 1) P.C.B.



C MECHANISM (DECK 2) P.C.B.



■ SCHEMATIC DIAGRAM (Parts list on pages 28~31.)

(This schematic diagram may be modified at any time with development of new technology.)

Notes:

- S701: DECK 1 Stop switch (■ STOP).
- S702: DECK 1 Fast-forward switch (▶▶).
- S703: DECK 1 Rewind switch (◀◀).
- S704: DECK 1 Forward-side playback switch (▷ PLAY).
- S708: Reverse mode switch (REVERSE MODE; ⇄, ⇅, ⇆).
- S709: Dolby noise-reduction selector switch (Dolby NR).
- S711: DECK 2 Stop switch (■ STOP).
- S712: DECK 2 Fast-forward switch (▶▶).
- S713: DECK 2 Rewind switch (◀◀).
- S714: DECK 2 Forward-side playback switch (▷ PLAY).
- S715: DECK 2 Reverse-side playback switch (◁ PLAY).
- S716: DECK 2 Record switch (● REC).
- S717: DECK 2 Pause switch (■ PAUSE).
- S718: Synchro-start switch (SYNCHRO START).
- S719: Tape-to-tape recording tape-speed selector switch (TAPE EDIT SPEED).
- S720: DECK 2 Tape counter reset switch (RESET).
- S722: DECK 2 Automatic-record-muting switch (● AUTO REC MUTE).
- S724: DECK ON/OFF switch in "on" position (DECK).
- S951: DECK 1 Mode switch in "off" position.
- S952: DECK 1 Cassette half detection switch in "off" position.
- S953: DECK 1 ATS (CrO₂) switch in "off" position.
- S971: DECK 2 Mode switch in "off" position.
- S972: DECK 2 Cassette half detection switch in "off" position.
- S973: DECK 2 Rev. Rec Inhibit switch in "off" position.
- S974: DECK 2 For. Rec Inhibit switch in "off" position.
- S975: DECK 2 ATS (CrO₂) switch in "off" position.
- S976: DECK 2 ATS (Metal) switch in "off" position.

- Resistance are in ohms (Ω), 1/4 watt unless specified otherwise.
1 K=1,000 (Ω), 1 M=1,000k (Ω)
- Capacity are in micro-farads (μF) unless specified otherwise.
- All voltage values shown in circuitry are under no signal condition and playback mode of deck 2 with volume control at minimum position otherwise specified.
< >Voltage values at playback mode of deck 1.
()Voltage values at record mode.
- For measurement us EVM.

- Important safety notice
Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

- (———— < + B > ————) indicates + B (bias).
- (———— < - B > ————) indicates - B (bias).
- (⚡) indicates the flow of the playback signal.
- (⇨) indicates the flow of the record signal.

- The supply part number is described alone in the replacement parts list.

Ref. No.	Production Part No.	Supply Part No.
IC7, 552	M5218AL	M5218L

* Caution!

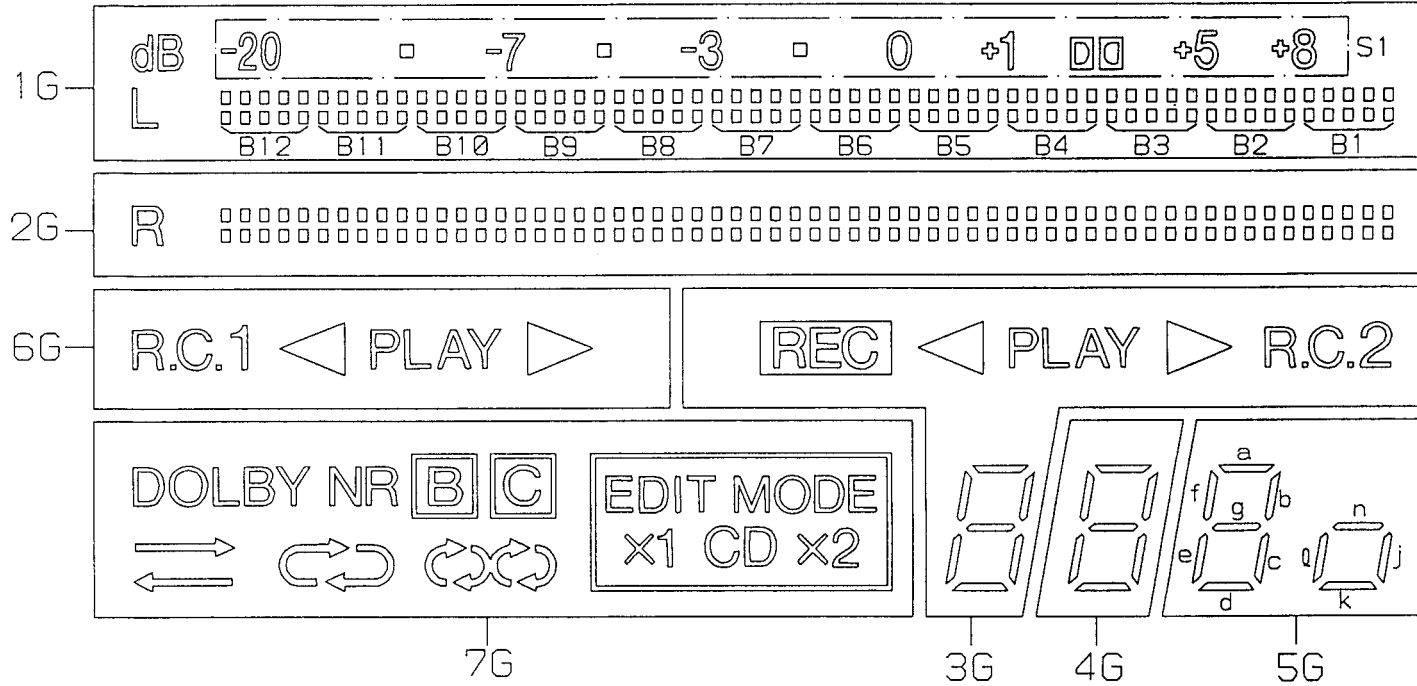
- IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
- * Cover the parts boxes made of plastics with aluminum foil.
- * Ground the soldering iron.
- * Put a conductive mat on the work table.
- * Do not touch the legs of IC or LSI with the fingers directly.

■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

CXA1101P AN7384N 	HD404302SA02 	AN7351K 	M50963-245SP 	M5218AL 	DN6851ALB
KSB564ACYGTA KSD471ACYGTA 	KSA1175YGTA KSC2785YGTA 2SC3311AQSTA DTA114ESTP DTC114ESTP 		2SB1030RSTTA 2SD1450RSTA 	2SB1357EFTA 2SD2037EFTA 	2SJ164PQRTA
2SB1240QRTV6 		MA165TA MA167TA MA700TA 1SR35200TB RVD1SS133TA 	MTZJ5R6BTA MTZJ8R2CTA 	MA4062LTA 	MA4240MTA

INTERNAL CONNECTION OF FL

• Grid connection diagram



• Anode connection table

	7G	6G	5G	4G	3G	2G	1G
P1			n	-		B1	B1
P2		PLAY	j	-	PLAY	B2	B2
P3			l	-		B3	B3
P4	EDIT MODE	R.C.1	k	-	R.C.2	B4	B4
P5	CD	-	-	-	REC	B5	B5
P6	x2	-	a	a	a	B6	B6
P7	x1	-	b	b	b	B7	B7
P8	-	-	f	f	f	B8	B8
P9	B	-	g	g	g	B9	B9
P10	C	-	c	c	c	B10	B10
P11	DOLBY NR	-	e	e	e	B11	B11
P12	-	-	d	d	d	B12	B12
P13	-	-	-	-	-	-	S1
P14	-	-	-	-	-	R	dB L

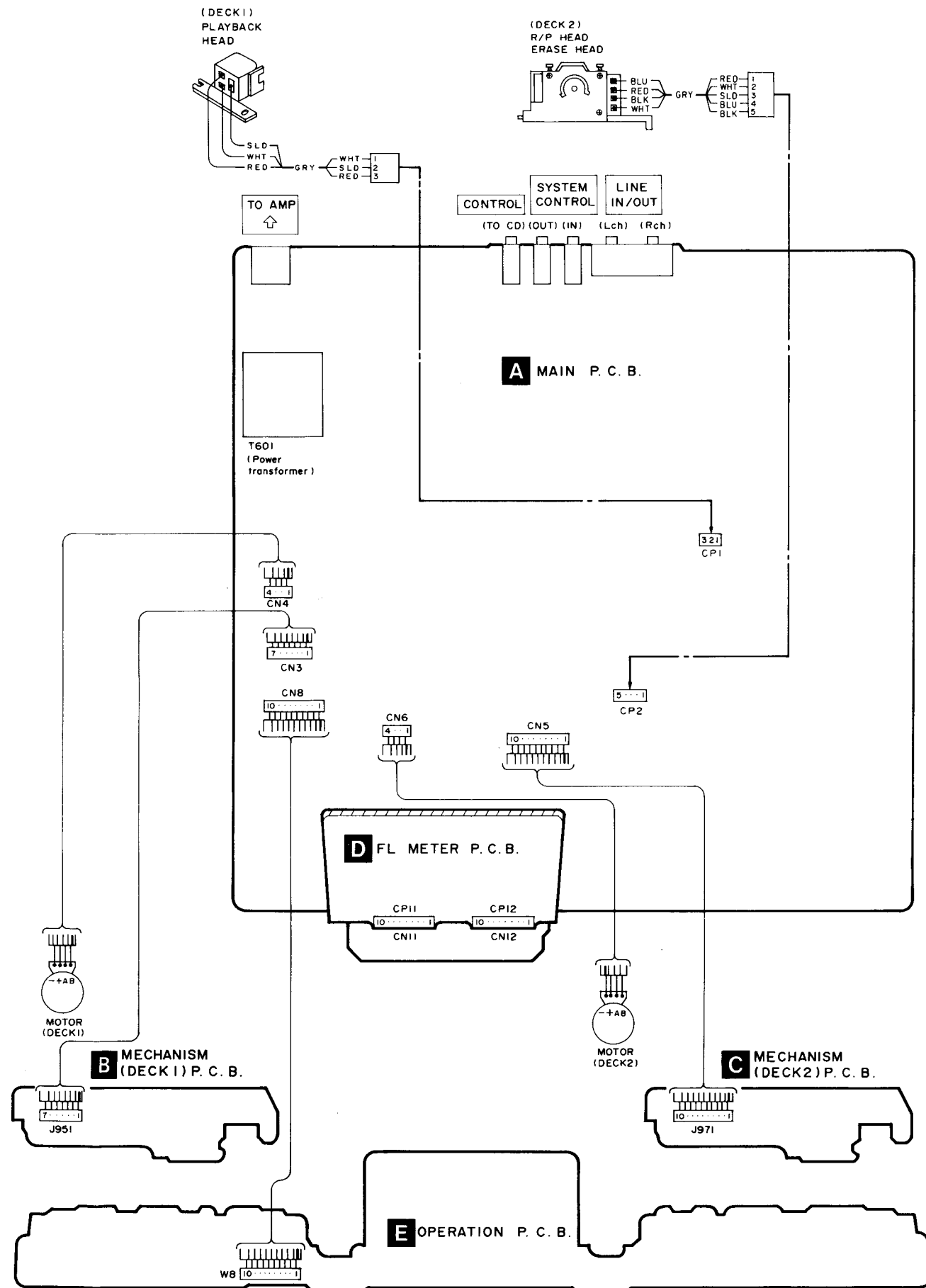
• Pin connection

PIN NO.	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	F2	F2	N2	N2	P14	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	P13	N13	N13	7G	N13	6G	5G	4G	3G	2G	1G	N13	N13	F1	F1

Note

- 1) F1, F2.....Filament
- 2) NP.....No pin
- 3) NC.....No connection
- 4) 1G~7G.....Grid

WIRING CONNECTION DIAGRAM



TERMINAL FUNCTION OF IC'S

• IC901 (M50963-245SP): MICROCOMPUTER (This microcomputer is used for mechanical operation.)

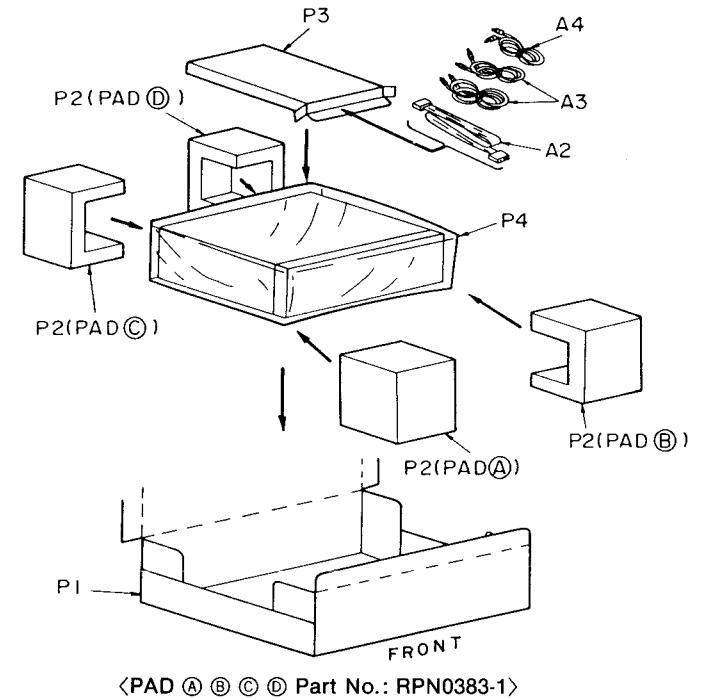
Pin No.	Mark	I/O Division	Function
1	V _{CC}	I	Power supply terminal
2	AV _{SS} (GND)	—	GND terminal
3	V _{REF}	I	Reference voltage terminal
4	D-A	—	Not used, open
5	PWM	O	Pulse width modulated signal
6	P6 (3)	O	Serial signal for FL display
7	P6 (2)	—	Not used, open
8	P6 (1)	O	Counter reset signal of deck 2 ("RESET": "L", others: "H")
9	P6 (0)	O	Counter reset signal of deck 1 ("RESET": "L", others: "H")
10	AN (7)	I	Variable voltage level signal of rec. level volume
11	AN (6)	I	Peak voltage terminal of rec. signal
12	AN (5)	I	Operation key switches Deck 2: STOP, F.F./REW, PLAY, REC, PAUSE, SYNCHRO START, X1/X2, counter reset
13	AN (4)	I	Operation key switches Deck 1: STOP, F.F./REW, F. PLAY, Dolby B/C, Meter range counter reset
14	AN (3)	—	Leader tape det. signal of deck 2
15	AN (2)	—	Leader tape det. signal of deck 1
16	P4 (1)	I	"AUTO REC MUTE" key switch signal of deck 2 ("ON": "L", "OFF": "H")
17	P4 (0)	I	Not used, open
18	P3 (7)	—	Not used
19	P3 (6)	—	Not used
20	P3 (5)	O	Mute signal of line out (Mute "ON": "H", Mute "OFF": "L")
21	P3 (4)	O	Mute signal with Cue/Review action (Mute "ON": "H", Mute "OFF": "L")
22	P3 (3)	O	Rec. mute signal of deck 2 (Mute "ON": "H", Mute "OFF": "L")

Pin No.	Mark	I/O Division	Function
23	P3 (2)	O	Playback equalizer select signal with tape edit of deck 1 (Normal: "H", X2 edit: "L")
24	P3 (1)	I	CD Synchro rec. signal (CD STOP: "H", CD PLAY: "L")
25	P3 (0)	O	CD Synchro rec. possible/impossible signal (possible: "L", impossible: "H")
26	INTI	I	"AC POWER OFF" det. terminal
27	CNV _{SS}	—	GND terminal
28	RESET	I	Reset signal ("L"=RESET, Normal: "H")
29	X _{IN}	I	Clock OSC terminal
30	X _{OUT}	O	
31	φ	—	Not used, open
32	V _{SS}	—	GND terminal
33	P5 (7)	I	Test terminal (Normal="H")
34	P5 (6)	I	Model select (Normal: "L")
35	P5 (5)	I	Model select (Normal: "L")
36	P5 (4)	I	Mechanism mode switch ("ON": "L", "OFF": "H")
37	P5 (3)	I	Cassette half det. switch ("ON": "L", "OFF": "H")
38	P5 (2)	I	Reverse rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
39	P5 (1)	I	Forward rec. inh. switch of deck 2 ("ON": "L", "OFF": "H")
40	P5 (0)	I	Reel rotation pulse signal of deck 2
41	P1 (7)	—	Not used, open
42	P1 (6)	O	Dolby B "ON/OFF" select signal ("ON": "L", "OFF": "H")
43	P1 (5)	—	Not used, open
44	P1 (4)	O	Playback amp. select signal (Deck 2-P.B: "L", others: "H")
45	P1 (3)	O	Bias OSC "ON/OFF" select signal ("ON": "L", "OFF": "H")
46	P1 (2)	—	Not used, open

PACKING

Note:

This packing not illustrated Ref. No. A1 (A1-1, A1-2, A1-3). Refer to the packing on page 38 of the service manual for Model No. SU-X102, Order No. AD9103049C8.



Pin No.	Mark	I/O Division	Function
47	P1 (1)	O	Dolby circuit encord/decord select signal (encord: "L", decord: "H")
48	P1 (0)	—	Not used, open
49	P0 (7)	I	Bus clock signal
50	P0 (6)	O	
51	P0 (5)	I	Bus data signal
52	P0 (4)	O	
53	P0 (3)	I	Forward rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
54	P0 (2)	I	Reverse rec. inh. switch of deck 1 ("ON": "L", "OFF": "H")
55	P0 (1)	I	Cassette-half det. switch of deck 1 ("ON": "L", "OFF": "H")
56	P0 (0)	I	Mechanism mode-switch of deck 1 ("ON": "L", "OFF": "H")
57	P2 (7)	O	Mechanism plunger "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")

Pin No.	Mark	I/O Division	Function
58	P2 (6)	O	Mechanism motor "ON/OFF" select signal of deck 2 ("ON": "H", "OFF": "L")
59	P2 (5)	O	Mechanism motor speed select signal of deck 2 ("X1": "H", "X2": "L")
60	P2 (4)	O	Mechanism plunger "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
61	P2 (3)	O	Mechanism motor speed select signal of deck 1 ("X1": "H", "X2": "L")
62	P2 (2)	O	Mechanism motor "ON/OFF" select signal of deck 1 ("ON": "H", "OFF": "L")
63	P2 (1)	I	Mechanism reel rotation pulse signal of deck 1
64	P2 (0)	I	Power switch ("ON": "L", "OFF": "H")

REPLACEMENT PARTS LIST

Notes : * Important safety notice:

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

• IC551 (HD404302SA02): MICROCOMPUTER (This microcomputer is used for FL meter operation.)

Pin No.	Mark	I/O Division	Function
1	SIN	I	Serial data signal
2 • 5 • 16	S1 • S12 • S14	O	Segment signal for FL display
3	S13	—	Not used, open
4	V disp	I	Pull down power supply terminal ($-V_{CC}$)
17	CP2	I	Peel pulse signal of deck 2
18	CP1		
19	CRST2	I	Tape counter reset terminal of deck 2
20	CRST1	I	Tape counter reset terminal of deck 1
21	GND	—	GND terminal
22	AVCC	I	Power supply terminal

Pin No.	Mark	I/O Division	Function
23	—	—	—
24	VRIN	—	Rec level control signal
25	SIGL	I	Lch level signal
26	SIGR	I	Rch level signal
27	AVSS	—	GND terminal
28	RESET	I	Reset terminal ("RESET": "H")
29	TEST	I	Test terminal
30	OSC1	O	Clock OSC terminal (4MHz)
31	OSC2	I	
32	VCC	I	Power supply terminal
33 • 38 • 41	G1 • G6 • G9	O	Grid signal for FL display
39 • 40	G7 • G8	—	Not used, open
42	PWM	—	Not used, open

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		INTEGRATED CIRCUIT(S)		Q813	DTC114ESTP	TRANSISTOR	
				Q902, 903	DTA114ESTP	TRANSISTOR	
				Q904	2SB1030QTA	TRANSISTOR	
IC1	AN7384N	ELECTRIC VOLUME		Q905	KSC2785YGTA	TRANSISTOR	
IC2	AN7351K	PLAYBACK/REC AMP		Q906	DTC114ESTP	TRANSISTOR	
IC7	M5218L	REC LEVEL CONTROL		Q908	DTC114ESTP	TRANSISTOR	
IC401	CXA1101P	DOLBY NR		Q909	DTA114ESTP	TRANSISTOR	
IC551	HD404302SA02	MICROCOMPUTER; FL METER		Q910	DTC114ESTP	TRANSISTOR	
IC552	M5218L	BUFFER AMP		Q911	KSA1175YGTA	TRANSISTOR	
IC901	M50963-245SP	MICROCOMPUTER; MECHANICAL		Q912	2SB1240-P	TRANSISTOR	
IC951	DN6851ALB	HALL (DECK1)		Q913	DTC114ESTP	TRANSISTOR	
IC971	DN6851ALB	HALL (DECK2)		Q914	2SB1030QTA	TRANSISTOR	
		TRANSISTOR(S)		Q915	DTC114ESTP	TRANSISTOR	
				Q916	2SB1030QTA	TRANSISTOR	
				Q917	DTC114ESTP	TRANSISTOR	
Q3, 4	2SJ164PQRTA	TRANSISTOR		Q918	KSA1175YGTA	TRANSISTOR	
Q5-8	KSA1175YGTA	TRANSISTOR		Q919	DTC114ESTP	TRANSISTOR	
Q9	KSC2785YGTA	TRANSISTOR		Q920	2SB1240-P	TRANSISTOR	
Q10-14	KSC2785YGTA	TRANSISTOR		Q921	DTC114ESTP	TRANSISTOR	
Q15, 16	2SD1450RSTA	TRANSISTOR		Q928	DTA114ESTP	TRANSISTOR	
Q301, 302	2SC3311A-Q	TRANSISTOR		Q929	KSC2785YGTA	TRANSISTOR	
Q303	KSB564ACYGTA	TRANSISTOR		Q930	DTA114ESTP	TRANSISTOR	
Q304	KSD471ACYGTA	TRANSISTOR		Q931	DTC114ESTP	TRANSISTOR	
Q551	KSA1175YGTA	TRANSISTOR		Q932	KSC2785YGTA	TRANSISTOR	
Q604	2SD2037EFTA	TRANSISTOR		Q933	DTA114ESTP	TRANSISTOR	
Q605	2SB1357EFTA	TRANSISTOR		Q934	DTC114ESTP	TRANSISTOR	
Q606	2SD2037EFTA	TRANSISTOR					
Q607	KSB564ACYGTA	TRANSISTOR					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		DIODE (S)		X901	EF0GC4004A4	CERAMIC FILTER(4MHz)	
						DISPLAY TUBE	
D1, 2	MA167	DIODE					
D311	MA165	DIODE		FL551	RSLO098-F	DISPLAY TUBE	
D551-554	MA165	DIODE				SWITCH(ES)	
D555	MTZJ5R6BTA	DIODE					
D557, 558	MA165	DIODE		S701	EVQ21405R	STOP (DECK1)	
D601-606	1SR35200TB	DIODE	△	S702	EVQ21405R	F. F. (DECK1)	
D607, 608	MTZJ8R2CTA	DIODE		S703	EVQ21405R	REW. (DECK1)	
D609	MA4240H	DIODE		S704	EVQ21405R	F. PLAYBACK (DECK1)	
D610	MA4062	DIODE		S708	EVQ21405R	REVERSE MODE	
D611	1SR35200TB	DIODE	△	S709	EVQ21405R	DOLBY NR	
D613-615	1SR35200TB	DIODE	△	S711	EVQ21405R	STOP (DECK2)	
D813	MA165	DIODE		S712	EVQ21405R	F. F. (DECK2)	
D902-907	MA165	DIODE		S713	EVQ21405R	REW. (DECK2)	
D908	1SR35200TB	DIODE		S714	EVQ21405R	F. PLAYBACK (DECK2)	
D909	MA165	DIODE		S715	EVQ21405R	R. PLAYBACK (DECK2)	
D910	MA700TA	DIODE		S716	EVQ21405R	REC (DECK2)	
D911, 912	MA165	DIODE	△	S717	EVQ21405R	PAUSE (DECK2)	
D917	MA700TA	DIODE		S718	EVQ21405R	SYNCHRO START	
D919	MA165	DIODE		S719	EVQ21405R	TAPE EDIT SPEED(X1/X2)	
D951	RVD1SS133TA	DIODE (DECK1)		S720	EVQ21405R	COUNTER RESET (DECK2)	
D971	RVD1SS133TA	DIODE (DECK2)		S722	EVQ21405R	AUTO REC MUTE (DECK2)	
		VARIABLE RESISTOR (S)		S724	EVQ21405R	DECK (POWER ON/OFF)	
				S951	RSH1A89ZB-U	MODE (DECK1)	
VR1	EVJ02FF01B15	REC. LEVEL CONTROL		S952	RSH1A90YB-U	HALF (DECK1)	
VR3-6	EVNDXAA00B24	PLAYBACK GAIN ADJ.		S953	RSH1A90YB-U	ATS (DECK1)	
VR7, 8	EVNDXAA00B14	OVERALL GAIN ADJ.		S971	RSH1A89ZB-U	MODE (DECK2)	
VR301	EVNDXAA00B53	ERASE CURRENT ADJ.		S972	RSH1A90YB-U	HALF (DECK2)	
VR302, 303	EVNDXAA00B15	OVERALL FREQ. ADJ.		S973	RSH1A90YB-U	R. REC INH. (DECK2)	
VR901-903	EVNDXAA00B53	TAPE SPEED ADJ.		S974	RSH1A90YB-U	F. REC INH. (DECK2)	
		COMPONENT COMBINATION (S)		S975	RSH1A90YB-U	ATS (DECK2)	
				S976	RSH1A90YB-U	ATS (DECK2)	
Z901	EXBF7E562JYV	COMBINATION PART (5. 6KX6)				CONNECTOR (S) AND SOCKET (S)	
		COIL (S)		CN3	RJS7T4ZA	CONNECOTR (7P)	
				CN4	RJS1A1704	CONNECTOR (4P)	
L1, 2	SLQX303-1KT	COIL		CN5	SJSD1005	CONNECTOR (10P)	
L3, 4	SLQX272-1YT	COIL		CN6	RJS1A1704	CONNECTOR (4P)	
L5, 6	RLQB103JT-Y	COIL		CN8	SJSD1005	CONNECTOR (10P)	
L301	SL09B4-K	COIL		CN11, 12	RJU003K010M1	SOCKET (10P)	
L401, 402	QLM9Z10K	COIL		CP1	SJTD313	CONNECTOR (3P)	
		TRANSFORMER (S)		CP2	RJP5G18ZA	CONNECTOR (5P)	
				CP11, 12	RJT003K010M1	CONNECTOR (10P)	
T601	RTP1H4G001	POWER TRANSFORMER	△			JACK (S)	
		OSCILLATOR (S)		JK1	SJF3069-2N	TERMIANL BOARD	
X551	EF0GC4004A4	CERAMIC FILTER (4MHz)		JK3-5	RJJ33T01	M3 JACK	

Ref. No.	Part No.	Part Name & Description	Remarks				
JK7	RJS1A0203-0	SOCKET (3P) TO AMPLIFIER	△				
		GND PART (S)					
E1	SNE1004-1	GND PLATE					
		FLAT CABLE (S)					
W3	RWJ0207210QQ	FLAT CABLE (7P)					
W4	RWJ1804200QQ	FLAT CABLE (4P)					
W5	RWJ0210200QQ	FLAT CABLE (10P)					
W6	RWJ1804200QQ	FLAT CABLE (4P)					
W8	RWJ0210200KQ	FLAT CABLE (10P)					

■ RESISTORS & CAPACITORS

Notes : * Capacity value are in microfarads (uF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

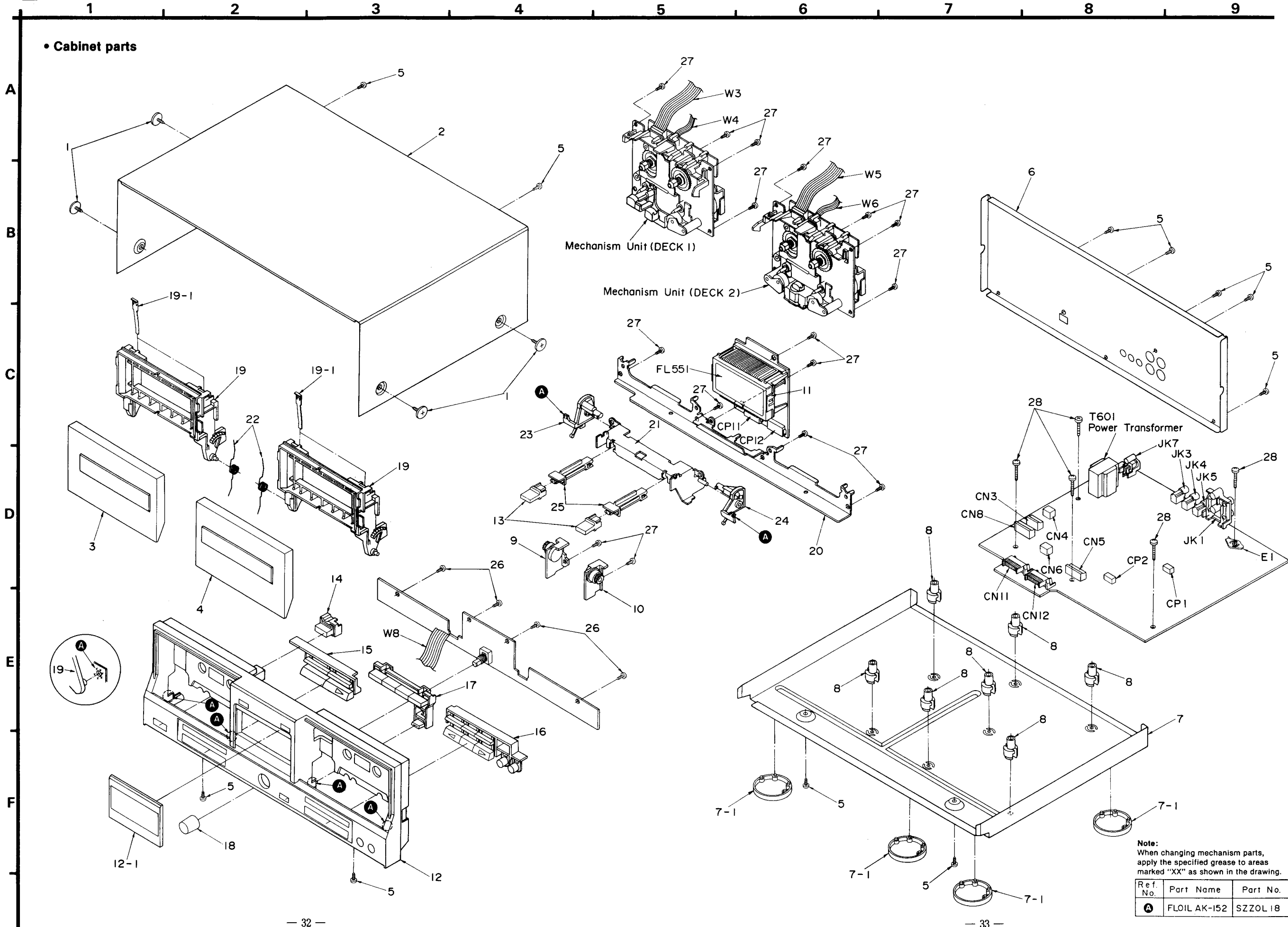
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
		RESISTORS	R61, 62	ERDS2TJ152	1/4W 1. 5K	R566, 567	ERDS2TJ103	1/4W 10K
			R65	ERDS2TJ392T	1/4W 3. 9K	R569	ERDS2TJ105T	1/4W 1M
			R67	ERDS2TJ103	1/4W 10K	R605, 606	ERD2FCVJ5R6T	1/4W 5. 6 △
R1, 2	ERDS2TJ394	1/4W 390K	R85	ERDS2TJ101	1/4W 100	R607, 608	ERDS2TJ102	1/4W 1K
R3, 4	ERDS2TJ393	1/4W 39K	R91	ERDS2TJ124T	1/4W 120K	R611	ERD2FCVG100T	1/4W 10 △
R5, 6	ERDS2TJ183T	1/4W 18K	R93	ERDS2TJ273	1/4W 27K	R612	ERD2FCVG270T	1/4W 27 △
R9, 10	ERDS2TJ222	1/4W 2. 2K	R94	ERDS2TJ123	1/4W 12K	R613	ERDS2TJ102	1/4W 1K
R11, 12	ERDS2TJ561	1/4W 560	R131, 132	ERDS2TJ104	1/4W 100K	R614	ERDS2TJ222	1/4W 2. 2K
R13, 14	ERDS2TJ332	1/4W 3. 3K	R133, 134	ERDS2TJ562	1/4W 5. 6K	R615, 616	ERDS2TJ270T	1/4W 27
R19, 20	ERDS2TJ101	1/4W 100	R135, 136	ERDS2TJ822	1/4W 8. 2K	R617, 618	ERQ16NWR15E	1W 0. 15
R21, 22	ERDS2TJ104	1/4W 100K	R137, 138	ERDS2TJ562	1/4W 5. 6K	R619-621	ERDS2TJ560T	1/4W 56
R23, 24	ERDS2TJ101	1/4W 100	R144, 145	ERDS2TJ103	1/4W 10K	R623	ERDS2TJ560T	1/4W 56
R25, 26	ERDS2TJ225	1/4W 2. 2M	R301	ERDS2TJ1R0	1/4W 1. 0	R624, 625	ERDS2TJ270T	1/4W 27
R27, 28	ERDS2EJ121	1/4W 120	R302, 303	ERDS2TJ183T	1/4W 18K	R631	ERD25FVJ2R7T	1/4W 2. 7 △
R29, 30	ERDS2TJ103	1/4W 10K	R304, 305	ERDS2TJ100	1/4W 10	R701	ERDS2TJ821	1/4W 820
R31, 32	ERDS2TJ273	1/4W 27K	R306	ERDS2TJ471	1/4W 470	R702	ERDS2TJ102	1/4W 1K
R33, 34	ERDS2TJ183T	1/4W 18K	R307	ERDS2TJ561	1/4W 560	R703	ERDS2TJ122	1/4W 1. 2K
R35, 36	ERDS2TJ474	1/4W 470K	R405, 406	ERDS2TJ122	1/4W 1. 2K	R704	ERDS2TJ152	1/4W 1. 5K
R37, 38	ERDS2TJ272T	1/4W 2. 7K	R407, 408	ERDS2TJ562	1/4W 5. 6K	R705	ERDS2TJ182	1/4W 1. 8K
R43, 44	ERDS2TJ103	1/4W 10K	R409	ERDS2TJ333	1/4W 33K	R706	ERDS2TJ222	1/4W 2. 2K
R45, 46	ERDS2TJ223	1/4W 22K	R410	ERDS2TJ103	1/4W 10K	R707	ERDS2TJ332	1/4W 3. 3K
R47, 48	ERDS2TJ472	1/4W 4. 7K	R551-556	ERDS2TJ473	1/4W 47K	R708	ERDS2TJ472	1/4W 4. 7K
R49, 50	ERDS2TJ122	1/4W 1. 2K	R557, 558	ERDS2TJ220T	1/4W 22	R713	ERDS2TJ821	1/4W 820
R51, 52	ERDS2TJ330	1/4W 33	R559, 560	ERDS2TJ152	1/4W 1. 5K	R714	ERDS2TJ102	1/4W 1K
R53, 54	ERDS2TJ562	1/4W 5. 6K	R561	ERDS2TJ102	1/4W 1K	R715	ERDS2TJ122	1/4W 1. 2K
R55, 56	ERDS2TJ272T	1/4W 2. 7K	R562	ERDS2TJ471	1/4W 470	R716	ERDS2TJ152	1/4W 1. 5K
R57, 58	ERDS2TJ222	1/4W 2. 2K	R563, 564	ERDS2TJ103	1/4W 10K	R717	ERDS2TJ182	1/4W 1. 8K
R59, 60	ERDS2TJ472	1/4W 4. 7K	R565	ERDS2TJ105T	1/4W 1M	R718	ERDS2TJ222	1/4W 2. 2K

Ref. No.	Part
R719	ERDS2TJ3
R720	ERDS2TJ4
R721	ERDS2TJ6
R722	ERDS2TJ1
R852	ERD2FCVG
R901	ERDS2TJ1
R902	ERDS2TJ8
R903	ERDS2TJ3
R904, 905	ERDS2TJ2
R906	ERDS2TJ1
R907	ERDS2TJ5
R908-910	ERDS2TJ1
R911	ERDS2TJ3
R912	ERDS2TJ2
R913	ERDS2TJ2
R914	ERDS2TJ6
R915	ERDS2TJ4
R916	ERDS2TJ2
R917, 918	ERDS2TJ1
R919	ERDS2TJ4
R920-922	ERDS2TJ1
R923	ERDS2TJ1
R924	ERDS2TJ1
R925	ERDS2TJ2
R926	ERDS2TJ1
R927	ERDS2TJ2
R928	ERDS2TJ2
R931	ERDS2TJ1
R932	ERDS2TJ3
R933	ERDS2TJ4
R934	ERDS2TJ1
R935	ERDS2TJ1
R938, 939	ERDS2TJ4
R941	ERDS2TJ1
R943	ERDS2TJ2
R945	ERDS2TJ1
R948	ERDS2TJ1
R949	ERDS2TJ1
R950	ERDS2TJ3
R951	ERDS2TJ1
R952	ERDS2TJ3
R953	ERDS2TJ1
R954	ERDS2TJ2
R955	ERDS2TJ8
R956	ERDS2TJ2
R957	ERDS2TJ8
R958	ERDS2TJ2
R959	ERDS2TJ8
R960	ERDS2TJ1
R961	ERDS2TJ2
R962	ERDS2TJ1
R963	ERDS2TJ3

EXPLODED VIEW

REPLACE

• Cabinet parts



Notes : * Import
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* The pa
Parts


Ref. No.	Part No.
1	RHD30007
2	RKMD024-2K
3	RYF0104B-K2
4	RYF0105A-K2
5	XTBS3+8JFZ1
6	RGR0102A-B
6	RGR0102A-D
7	RFKJTX302LE
7-1	RKA0011-2
8	RKQ0089
9	RFKNSDN7AK
10	RFKNSDN7BK
11	RMNO135
12	RFKGSX102E-
12-1	RKWO165-K
13	RGU0070
14	RGU0453-K
15	RGU0602-K
16	RGU0459A-K
17	RFKNSX102E-
18	RGWO098-K
19	RKF0169A-K
19-1	QBP2006A
20	RMAD159-1
21	RMAD373
22	RMED0068-1
23	RMLO185-1
24	RMLO186-1
25	RMMD041
26	XTBS26+10J
27	XTB3+10JFZ
28	XTB3+20JFZ
P1	RPG0842
P2	RPNO383-1
P3	SPSD152
P4	SPP756
A1	RQF1081
A1	RQF1082

Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

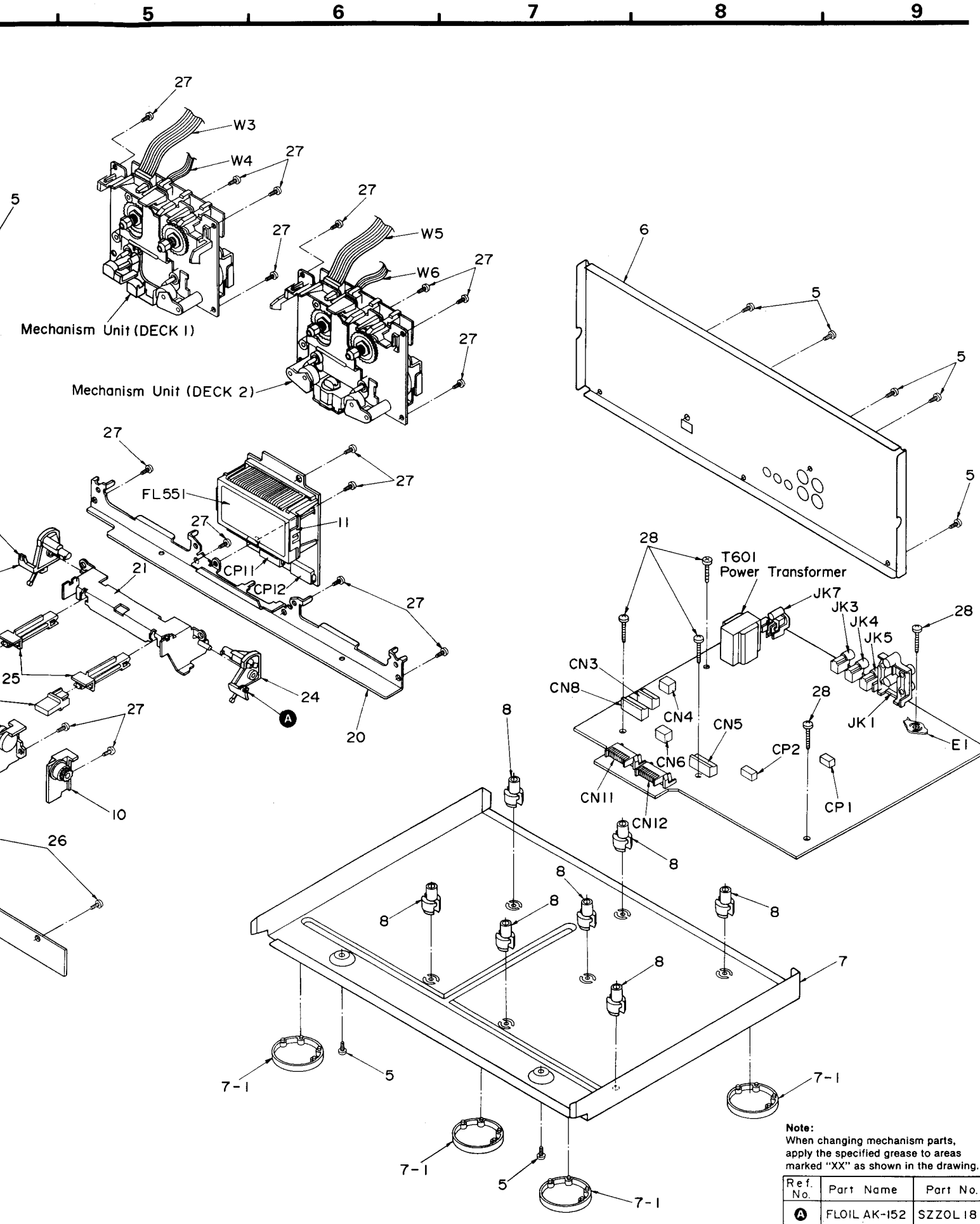
Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL 18

■ REPLACEMENT PARTS LIST

Notes : * Important safety notice:

Components identified by  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

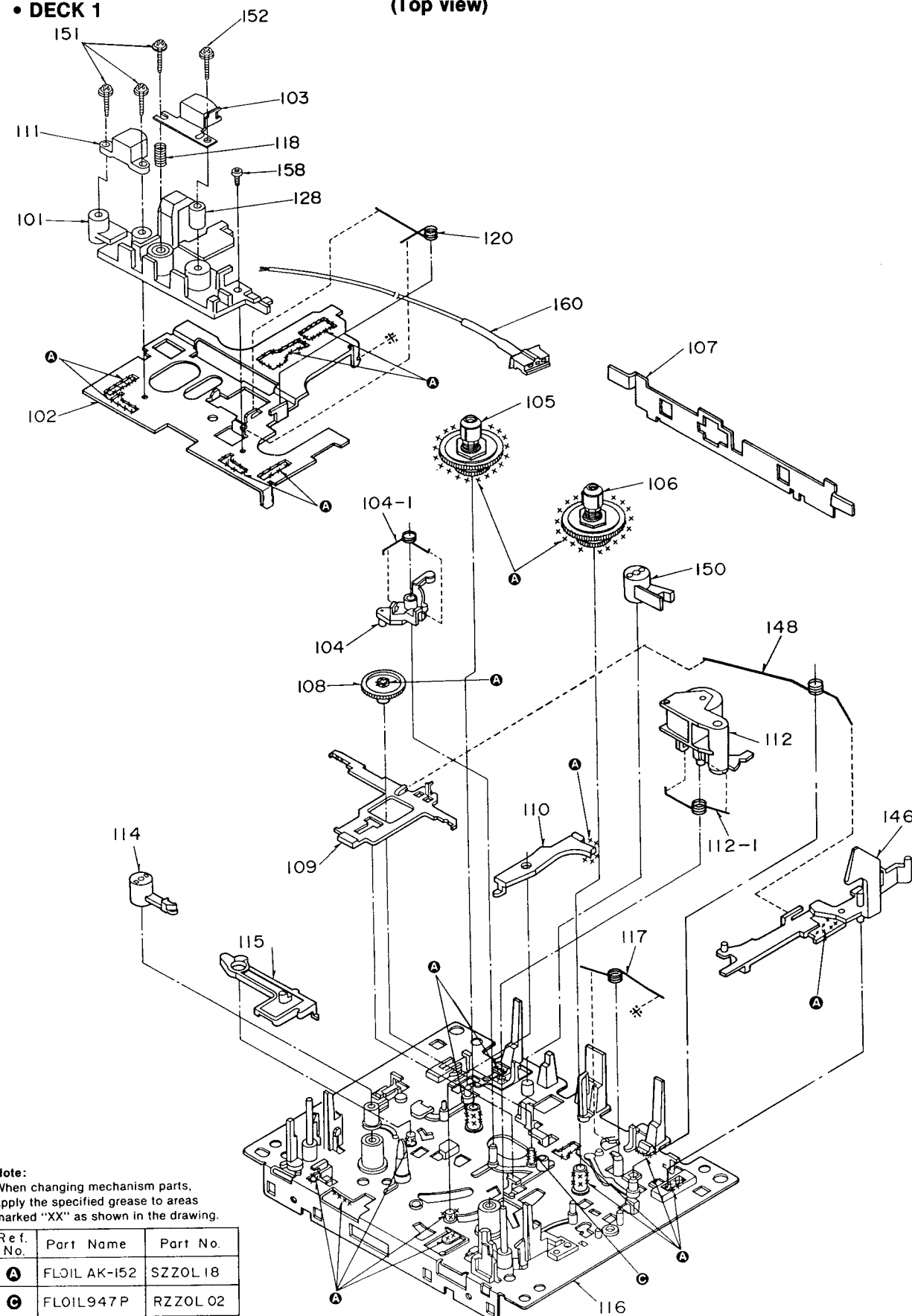
Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL18

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RHD30007	SCREW	
2	RKM0024-2K	CABINET	
3	RYF0104B-K2	CASSETTE LID (DECK1)	
4	RYF0105A-K2	CASSETTE LID (DECK2)	
5	XTBS3+8JFZ1	SCREW	
6	RGR0102A-B	REAR PANEL	(E, EB, GC, GN)
6	RGR0102A-D	REAR PANEL	(EG)
7	RFKJTX302LEK	BOTTOM BOARD ASS'Y	
7-1	RKA0011-2	FOOT	
8	RKQ0089	P. C. B. HOLDER	
9	RFKNSDN7AK	DAMPER GEAR ASS'Y (L)	
10	RFKNSDN7BK	DAMPER GEAR ASS'Y (R)	
11	RWN0135	FL. HOLDER	
12	RFKGSX102E-K	FRONT PANEL ASS'Y	
12-1	RKW0165-K	TRANSPARENT PLATE	
13	RGU0070	BUTTON, EJECT	
14	RGU0453-K	BUTTON, DECK (POWER)	
15	RGU0602-K	BUTTON, OPERATION (DECK1)	
16	RGU0459A-K	BUTTON, OPERATION (DECK2)	
17	RFKNSX102E-K	BUTTON ASS'Y COUNT./SYNC.	
18	RGW0098-K	KNOB, REC. LEVEL	
19	RKF0169A-K	CASSETTE HOLDER	
19-1	QBP2006A	TAPE PRESSURE SPRING	
20	RMA0159-1	MECHANISM ANGLE	
21	RMA0373	EJECT ANGLE	
22	RME0068-1	SPRING	
23	RML0185-1	EJECT LEVER (L)	
24	RML0186-1	EJECT LEVER (R)	
25	RMM0041	EJECT ROD	
26	XTBS26+10J	SCREW	
27	XTB3+10JFZ	SCREW	
28	XTB3+20JFZ	SCREW	
		PACKING MATERIAL	
P1	RPG0842	CARTON BOX	
P2	RPN0383-1	PAD	
P3	SPSD152	ACCESSORIES BOX	
P4	SPP756	PROTECTION COVER	
		ACCESSORIES	
A1	RQF1081	INSTRUCTION MANUAL UNIT	(E)
A1	RQF1082	INSTRUCTION MANUAL UNIT	(EB)

EXPLODED VIEWS

- Mechanical parts
- DECK 1

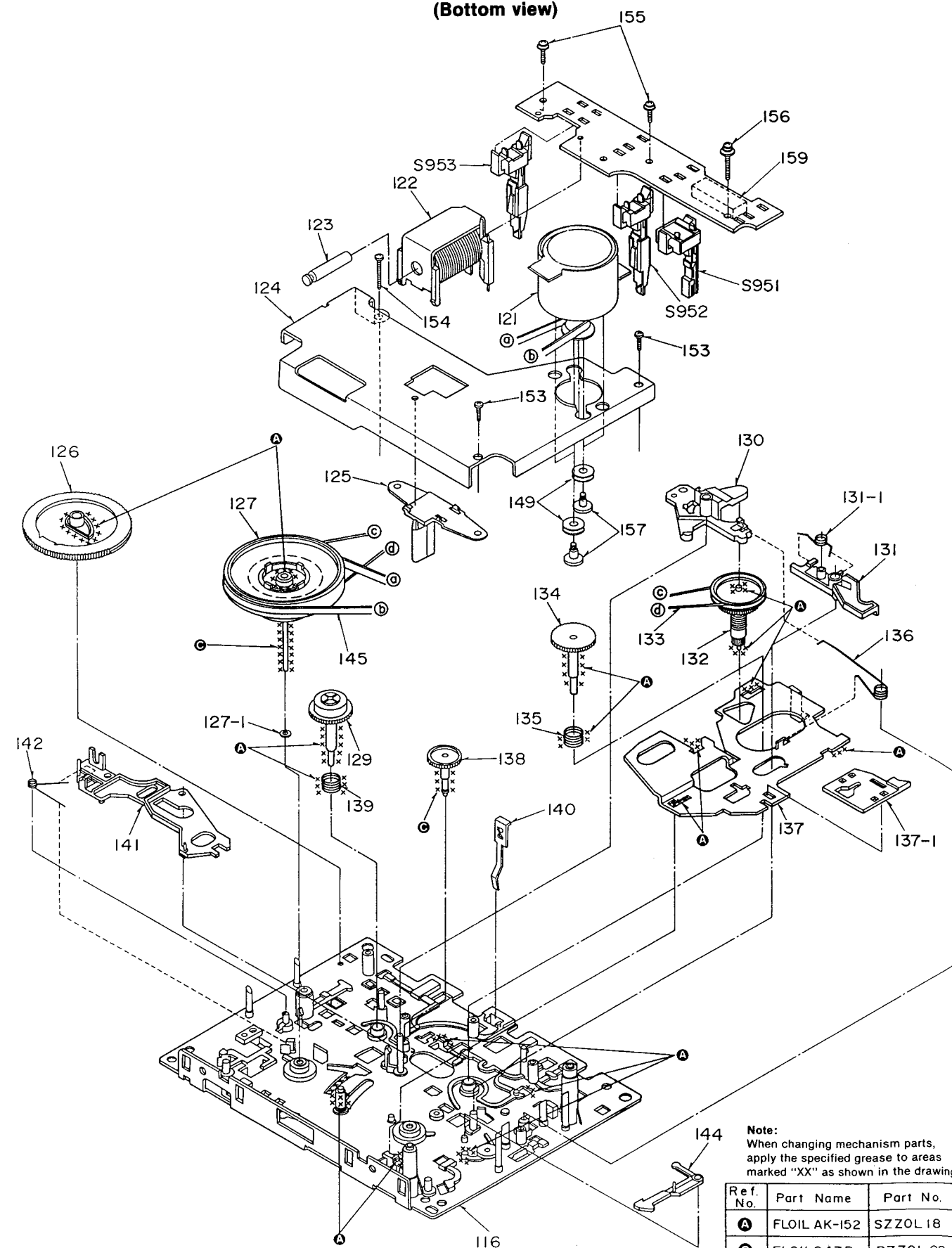
(Top view)



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL 18
C	FLOIL 947P	RZZOL 02

(Bottom view)

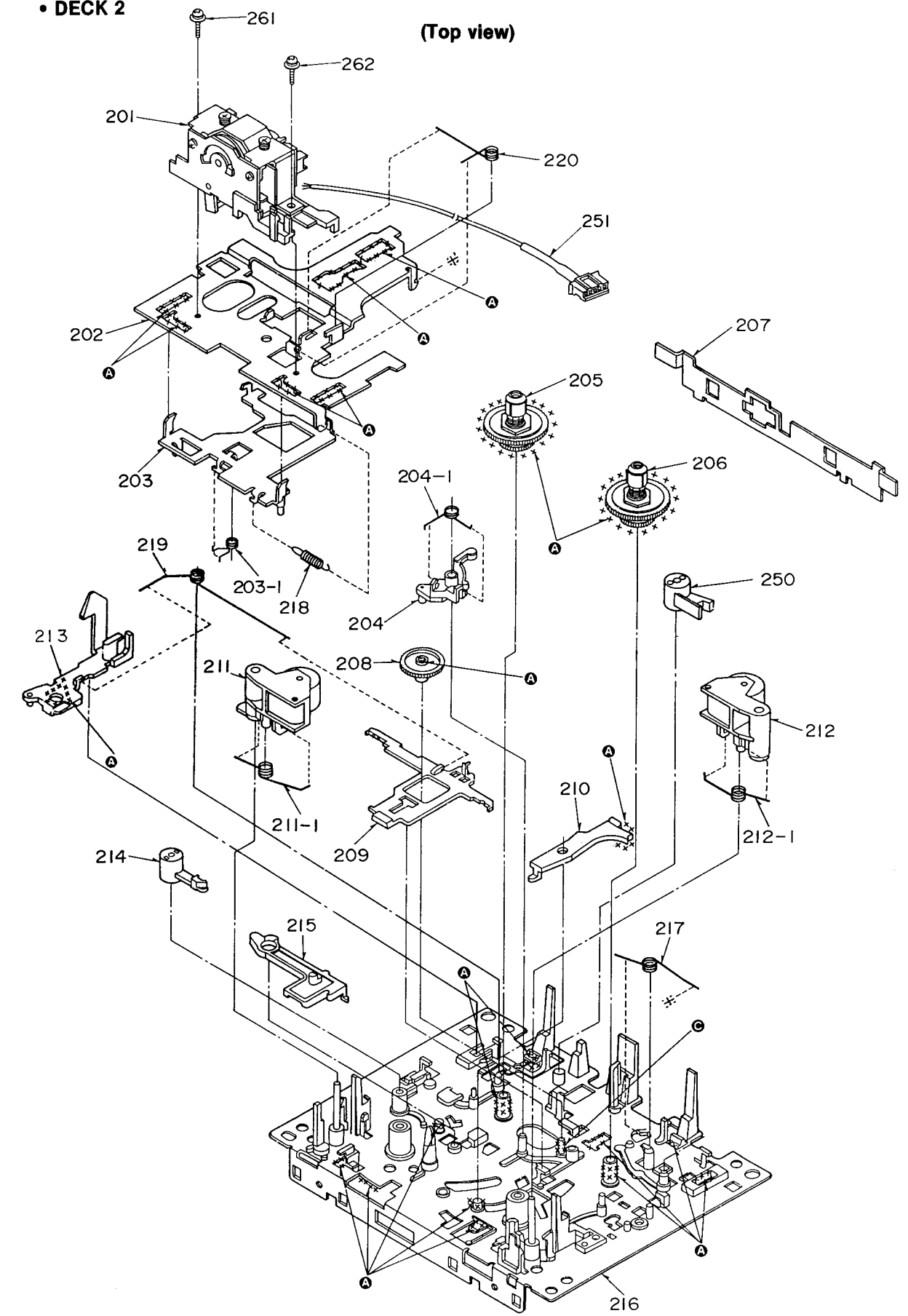


Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

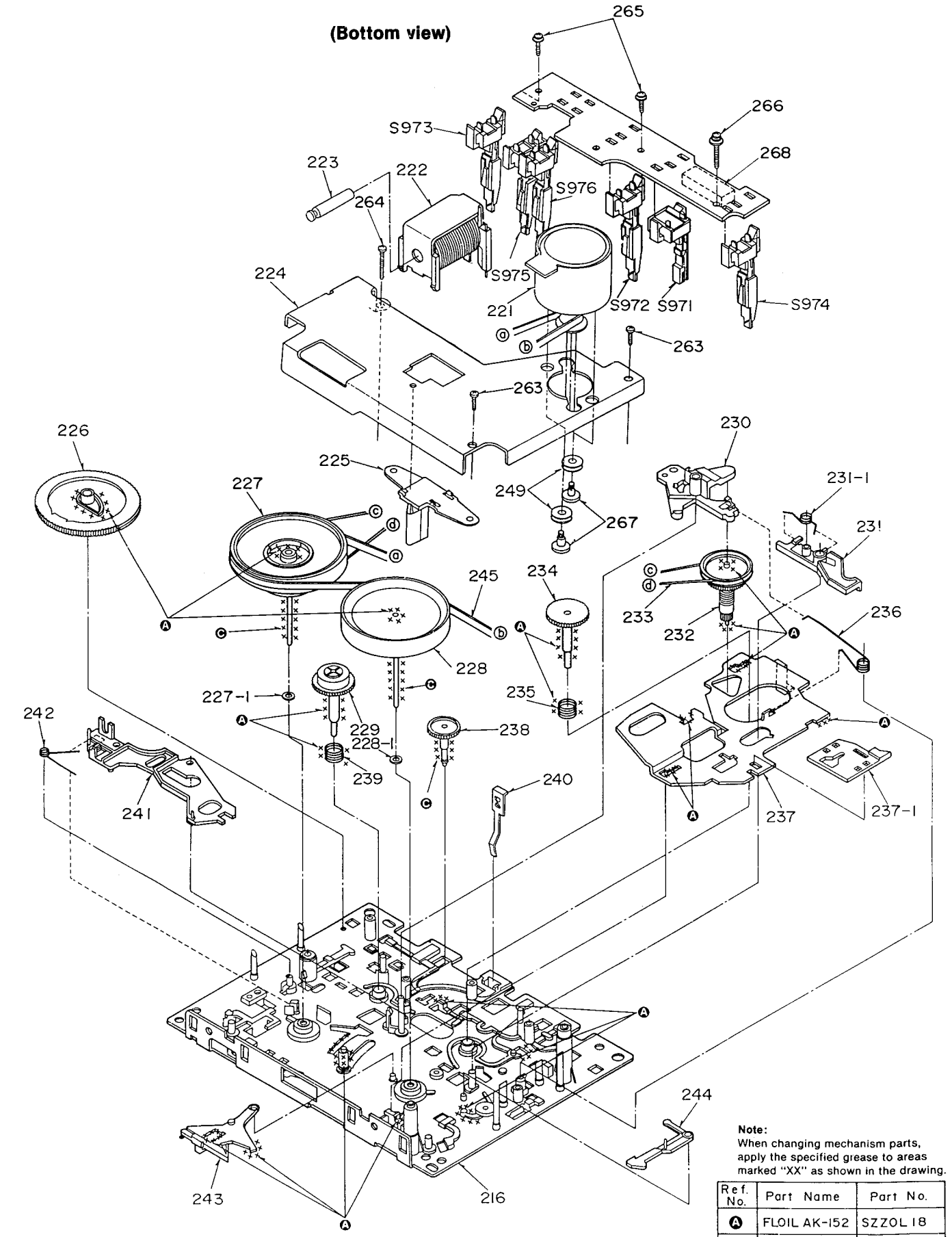
Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL 18
C	FLOIL 947P	RZZOL 02

• DECK 2

(Top view)



(Bottom view)



Note:
When changing mechanism parts,
apply the specified grease to areas
marked "XX" as shown in the drawing.

Ref. No.	Part Name	Part No.
A	FLOIL AK-152	SZZOL 18
C	FLOIL 947P	RZZOL 02

REPLACEMENT PARTS LIST

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
		MECHANISM PARTS LIST		148	RUW144ZA	SPRING	
				149	RHG3032ZA	RUBBER CUSHION	
				150	RNL180ZB	DAMPER ARM	
DECK1				151	QHQ1361A	SCREW	
101	RMD5013ZD	HEAD ANGLE		152	RHE5201ZA	SCREW	
102	RUA793YC	HEAD BASE		153	XTN26+7J	SCREW	
103	RJHAC35GYAM	PLAYBACK HEAD		154	RHE5203ZA	SCREW	
104	1UB0089ZA	ARM		155	XTW2+8S	SCREW	
104-1	RUW148ZA	SPRING		156	XYC2+JF16	SCREW	
105	1DMD005ZA	REEL TABLE (R)		157	RHD26002	SCREW	
106	1DMD017ZA	REEL TABLE (F)		158	XTN2+5F	SCREW	
107	RML0069-1	LEVER		159	RJS7T7ZA	CONNECTOR (7P), J951	
108	RDG5772ZC	GEAR		160	REX0060	LEAD WIRE BLOCK (3P)	
109	RUB508ZB	BRAKE ROD					
110	RUB506ZB	ROCK LEVER					
111	RUG82ZA	DAMPE HEAD					
112	1UB0087ZA	ARM					
112-1	RUW140ZC	SPRING					
114	RNL1ZD	DAMPER ARM					
115	RUB503ZD	MAIN LEVER					
116	RZUAR300	CHASSIS					
117	RUW142ZA	SPRING					
118	QBC1278A	SPRING					
120	RUW139ZA	SPRING					
121	RFML33ZA	DC MOTOR					
122	1UE0015ZA	PLUNGER					
123	RUB428ZE	MOVING IRON CORE					
124	RUL1030YA	ANGLE					
125	RMD5014ZC	ANGLE					
126	RDG5927ZG	MAIN GEAR					
127	1DMD037ZA	FLYWHEEL (F)					
127-1	RNW139ZA	WASHER					
128	RHM278ZA	SPACER					
129	1DG0006ZA	REEL TABLE GEAR					
130	RUB513ZD	ARM					
131	1UB0091ZA	LEVER					
131-1	RUW146ZA	SPRING					
132	1DR0011ZA	MAIN PULLEY					
133	RDV90ZB	BELT					
134	RDG5769ZA	REEL TABLE GEAR					
135	RUQ111ZB	SPRING					
136	RUW145ZA	SPRING					
137	1UB0090ZA	ROD					
137-1	RUB512ZB	F. F. ROD					
138	RDG5773ZB	GEAR					
139	RUQ112ZA	SPRING					
140	RUS609ZC	TAPE PRESSURE SPRING					
141	RUB514ZC	LEVER					
142	RUW147ZA	SPRING					
144	RUB509ZA	LEVER					
145	RDV109ZA	CAPSTAN BELT					
146	RUB507ZD	EJECT ROL (R)					

Ref. No.	Part No.	Part Name & Description	Remarks	Ref. No.	Part No.	Part Name & Description	Remarks
				241	RUB514ZC	LEVER	
		MECHANISM PARTS LIST		242	RJW147ZA	SPRING	
				243	RUB515ZA	LEVER	
DECK2				244	RUB509ZA	LEVER	
201	RXQ0019	HEAD BLOCK(REC./PLAYBACK)		245	RDV108ZA	CAPSTAN BELT	
202	RJA793ZF	HEAD BASE		249	RHG3032ZA	RUBBER CUSHION	
203	RZLAR300	ROD		250	RNL180ZB	DAMPER ARM	
203-1	RJW143ZA	SPRING		251	REX0059	LEAD WIRE BLOCK(5P)	
204	1UB0089ZA	ARM		261	XTW2+6L	SCREW	
204-1	RJW148ZA	SPRING		262	XTW2+8L	SCREW	
205	1DM0018ZA	REEL TABLE(R)		263	XTN26+7J	SCREW	
206	1DM0017ZA	REEL TABLE(F)		264	RHE5203ZA	SCREW	
207	RML0069-1	LEVER		265	XTW2+8S	SCREW	
208	RDG5772ZC	GEAR		266	XYC2+JF16	SCREW	
209	RUB508ZB	BRAKE ROD		267	RHD26002	SCREW	
210	RUB506ZB	LEVER		268	RJS10T7ZA	CONNECTOR(10P), J971	
211	1UB0088ZA	ARM(R)					
211-1	RJW141ZA	SPRING					
212	1UB0087ZA	ARM(F)					
212-1	RJW140ZC	SPRING					
213	RUB541ZB	EJECT ROD(L)					
214	RNL1ZD	DAMPER ARM					
215	RUB503ZD	MAIN LEVER					
216	RZUSX980	CHASSIS					
217	RJW142ZA	SPRING					
218	RJD105ZA	SPRING					
219	RJW167ZA	SPRING					
220	RJW139ZA	SPRING					
221	RFM133ZA	DC MOTOR					
222	1UE0015ZA	PLUNGER					
223	RUB428ZE	MOVING IRON CORE					
224	RJL1030YA	ANGLE					
225	RMD5014ZC	ANGLE					
226	RDG5927ZG	GEAR					
227	1DW0037ZA	FLYWHEEL(F)					
227-1	RNW139ZA	WASHER					
228	1DW0038ZA	FLYWHEEL(R)					
228-1	RNW138ZA	WASHER					
229	1DG0006ZA	REEL TABLE GEAR					
230	RUB513ZD	ARM					
231	1UB0091ZA	LEVER					
231-1	RJW146ZA	SPRING					
232	1DR0011ZA	MAIN PULLEY					
233	RDV90ZB	BELT					
234	RDG5769ZA	REEL TABLE GEAR					
235	RJQ111ZB	SPRING					
236	RJW145ZA	SPRING					
237	1UB0090ZA	ROD					
237-1	RUB512ZB	F. F. ROD					
238	RDG5773ZB	GEAR					
239	RJQ112ZA	SPRING					
240	RJS609ZC	TAPE PRESSURE SPRING					